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PART FIRST.
ORIGINAL COMMUNICATIONS.

ART. I.—*Report upon an Individual of the Bushman Tribe of Hottentots, brought from the Cape of Good Hope, by* Mr. CHASE, United States Consul at the Cape. By the Committee of the Lyceum of Natural History of New-York, ARTHUR B. STOUT, WOOLCOTT GIBBS, JOHN A. SMITH, JOHN L. LE CONTE, THEO. C. TELLKAMPF.

A FAVORABLE opportunity having presented itself to examine one of the tribe of Bushmen, Boschimans or Saabes, of the Hottentot race, your committee have accepted the facilities given them by Mr. Chase, formerly Consul of the United States at the Cape of Good Hope, carefully to examine the peculiarities of the individual in question.

Mr. Chase has kindly furnished the committee with the following circumstances of his early history.

532 Broadway, 24th April, 1848.

DR. ARTHUR B. STOUT:

DEAR SIR,—I beg leave to state for the information of the scientific society, that the Bushman which I have brought from South Africa, came into my possession between four and five years ago, from the hands of a trader, who (according to his own account,) picked him up in a dying state, while passing through the Bushman country. The Caffres had come upon the Bushmen, during the time the trader was on his return from an expedition and had murdered a great many of these poor creatures, many dead bodies being constantly in view. He found that life still remained in the boy, Henry, picked him up, placed him in his wagon, nursed him until he was quite recovered and brought him to Cape Town. On the eve of his starting again for the interior, the trader came and requested me to take charge of him.

I have succeeded in learning him to speak the English language,

but with great trouble. I have found it difficult to command his attention. I have, however, taught him by taking articles which he could see, and making him repeat the names after me until he could recollect them, so that he now pronounces pretty correctly.

When clothes were first put on the boy, he seemed to be in chains, shaking himself, and the moment he could get out of the presence of others, would often strip off his clothes and leave them on the ground.

He is somewhat stubborn and disobedient, but I have thus far succeeded in bringing him to this state without once inflicting the smallest chastisement. Enclosed you have a pretty correct description of the tribe from the "Boston Herald."

I am, sir, your obedient servant,

ISAAC CHASE.

Before offering remarks, we give at once the following measures and description.

MEASUREMENT.

Facial angle,	90°	nearly.
Circumference of head,	20½	inches.
Height of the individual,	4	feet.
Antero-posterior diameter of head,	7¼	inches.
Occipito-frontal do. do.	6⅝	"
Parietal diameter,	5⅜	"
Mento-occipital,	8⅜	"
Temporal diameter,	3 5/6	"
Height of forehead to noge of the hair,	1⅞	"
Mento-frontal line, or length of face to the noge of the hair,	5½	"
Across the cheek-bones,	4¼	"
Breadth between the eyes,	1⅜	"

DESCRIPTION.

Head slightly flattened on the top, large and globular. Parietal bones prominent, cheek bones high. Eyes very nearly or exactly in the same line. Nose very flat, curving inward in the middle, sloping obliquely at the nostrils; nostrils small and broad. Lips not very thick, but full. Teeth good, vertical. Ears very prominent, everted, thick margins, small. Hands and feet very small and well formed. Chest narrow and frame slight but symmetrical. Very active and quite muscular. Color light brown, rather lighter on the face than on the trunk.

Intellect like that of a child of 6 or 7 years.

An idea of the general configuration of the face, and also of the color of the person, may be obtained from the annexed drawing.

The African type is strongly developed. He has the black curly hair, dark eyes, high cheek-bones, and flat nose of his race. But the lips are not remarkably prominent, and would appear even less so if the nose were more elevated. The expression of the face is pleasing, and its form regular. The forehead is, comparatively to the

face, high, and is not receding. Certainly, in these respects he differs from the character attributed to the Bushmen, whose physiognomy is represented as ugly, repulsive and disgusting in the highest degree.—The eyebrows are placed rather obliquely, inwards and downwards, towards the median line; but the eyes are not oblique, they are horizontal; and in this respect again he differs from the description of the Bushmen. The nasal septum between the eyes is extremely broad, and much depressed. The size of the face comparatively to that of the cranium is very small; so that we look in vain for the extremely animal expression and development of the sensual aspect assigned to this oppressed and degraded tribe. On the contrary, the intellectual so far takes precedence of the animal configuration, that if we should rely upon the written descriptions of Bushmen, we should be induced to believe that the present is not of that tribe.

Again, it has been stated that the feet of this tribe are so remarkably formed that an inspection of a foot-track suffices to identify a Bushman from all the neighbouring tribes, and serves to enable the Caffres, his enemy, to pursue and overtake him. In this view we carefully examined the feet; we found them not only regular but very handsomely formed. So that if the present specimen is to be taken as the type, the peculiarity must be attributable rather to the symmetry than to any deformity of the inferior extremity.

Neither has any peculiarity been observed in the conformation of the pelvic region.

The hair presents marked differences from that of the Caucassian, or the Negro. It is flattened, and not cylindrical, concave on one side, convex on the other. It has, however, a fibrous, cortical substance, and a granular medulla. It is compactly curled, is very fine, and is scattered in little tufts on the head, with intervals in which the skin is distinctly seen. The termination of each tuft is in a compact twist, which resembles the whorl of a gimblet.—These little tufts when drawn out contain hairs from four to six inches in length. But the hair does not grow down the back of the neck, as is stated of the Bushmen tribe.

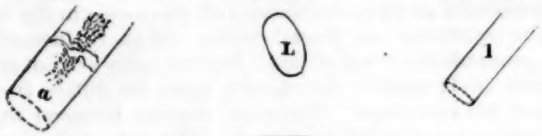
Under the microscope the hairs often appear split in three parts at the end, are distinctly fibrous, and when broken or twisted split up, and show little fibres like splinters. The hair bulb is terminated by little fibrillæ, and is rather more cylindrical than in the hair of the whites.

Dr. Tellkampf has made the accompanying measurements of the comparative dimensions of Caucassian, Bushman, and Negro hair, together with outlines. Measurements can, however, whether direct or comparative, have only a passing interest; for the hair in Bushmen as in others must be subject to great variations.

The flattened concavo-convex form is, however, peculiar. The diathesis of this individual of the tribe is manifestly scrofulous, as may be concluded from the general delicacy of his conformation; his small stature, the commencing unsoundness of his teeth, the striated, semiopaque, and incurvated condition of his nails, the eruption of porrigo furfurans which affects his scalp, and the disposition he

HAIR OF A CAUCASSIAN.

Breadth. Thickness. Short Diameter.



HAIR OF A BUSHMAN.

Breadth. Thickness. Short Diameter.

HAIR OF A NEGRO.

First Specimen.

Breadth. Thickness. Short Diameter.

Second Specimen.

Breadth. Thickness. Short Diameter.

RELATION OF BREADTH TO THICKNESS.

Caucassian,	α	:	1	::	5	:	$3\frac{1}{2}$	=	10	: 7
Bushman,	A	:	B	::	5	:	2	=	10	: 4
Negro, 1st sp.	α	:	β	::	5	:	$2\frac{1}{2}$	=	10	: 5
" 2d sp.	α	:	β	::	$4\frac{1}{2}$	:	$1\frac{1}{2}$	=	9	: 3

	CAUCASIAN.	BUSHMAN. (In Paris Lines.)	NEGRO.
Breadth,	α 0.050	A 0.050 to 0.060 to 0.045	α 0.050 or 0.035
Thickness,	1 0.035	B 0.020 " 0.027 " 0.018	β 0.025 " 0.015

Granular Substance (marrow) α $\frac{1}{4}$ to $\frac{1}{3}$ of the whole breadth.
" " " α generally wanting, $\frac{1}{12}$, $\frac{1}{8}$ to $\frac{1}{5}$ where it exists.

One side of those hairs which I have examined was convex, the other either concave, straight or less convex.—A. B.

shows to be subjected to catarrhal affections. Although sensible to the severity of our climate, which constantly compels him to put on thick clothing, he must have experienced some of the rigors of climate before he left his own country. And as he has always been well clothed, nourished, and protected, perhaps here more so than at home, there is no reason to suppose that the affection has been developed since he was transported from his native soil. On the contrary, the fact that the Bushmen are seldom known to live over fifty years, are a squalid red, and subsist in the most miserable manner it is fair to infer that scrofula is a common and hereditary disease of the tribe.

We have thus far spoken of the physical development and aspect of our Bushman. It has been a subject of interest to the Committee to observe his intellectual condition.

We stated, in brief, that his intellect was like that of a child of six or seven years. And, in truth, his mind is too immature to be capable of any serious employment. And should we compare him with children of cultivated and civilized people, whose education in fact begins from their earliest infancy, we might find him deficient. But a more just comparison with the children of savage tribes and those tribes African ones, wandering, hunted like wild animals, and struggling against the unpropitious circumstances of a sterile country, will place the intelligence of our little Hottentot in a far more favorable light, and again distinguish him from the description which stigmatizes the Bushmen as the lowest in the scale of mental capacity. He is decidedly intelligent, quick in his perceptions, and possessed of a full share of vivacity. His answers are appropriate, and often pertinent, and his judgment proportionately to the opportunities he has enjoyed to cultivate his understanding, is as strong as could be expected.

During the time he has been protected by Mr. Chase, he has learned to speak English well, and has made as satisfactory progress in learning the different branches of primary education as could be anticipated from a desultory course of instruction. He learns the various amusements of children with facility and eagerness, and shows ingenuity in contriving articles of play and diversion, as kites, &c. Having shown him a large building in course of construction, he recognized it as a church, and gave intelligent reasons why it was a church and not a dwelling-house; that it had pillars, windows with arches, and was very large. Some barrels being pointed out to him, he designated them as barrels of pitch, as they were. From a handful of money, he could readily distinguish the different coins. In a word, he gave evidence that he possessed the faculties of perception, discrimination and observation in a high degree, and kept them in constant exercise. Better manifestations of intelligence were however elicited in his interviews with the artist to whom we are indebted for the accompanying sketch. As he soon wearied of sitting quietly, various promises, entreaties, bribes, and even threats were resorted to, but quickly failed to appease his impatience. The flattery of making him a handsome picture was quite lost upon him. But when pictures were shown him, he had so

many questions to ask about them, that he entirely forgot the artist. At a second sitting, he listened eagerly to stories and fables. The facts of the history of William Tell having been related to him, he showed that he had fully comprehended it. The sharp-shooting particularly attracted him, and no one could have expressed more gratification when Tell's joy at receiving his son when he ran to him with the pierced apple was described. Being asked which he would rather have been, as William Tell or Gessler, he replied, "William Tell, for he was braver and better, and did n't get killed." To the fable of the Fox and Crow, he listened with intense interest, and anticipated its conclusion by crying out, while laughing, "and when he opened his mouth to sing, he dropped his cheese, and the fox stole it." One more trait of intelligence deserves notice. He was told to retaliate upon the artist by making a sketch of *him*—and in the rough diagram he scribbled in a moment, the idea of the artist was distinctly visible.

These details, apparently insignificant, are nevertheless the scintillations of an active mind, and are some of the tests which have been used to inquire if he were susceptible of improvement. That his mind is very youthful is certainly true, but let us not forget whatever may be the actual age of the individual, in all that regards the subjects upon which his mind has been interrogated, it has had but five or six years of cultivation. The question of age is here naturally asked; we are informed that he is about 18 or 19 years old. Some doubt, however, may be indulged upon this point. He has been in the possession of Mr. Chase but five or six years, anteriorly to which all is obscure and vague. We may therefore be permitted to reason upon general facts. Upon his face and lip there is no sign of beard, and no hair upon the pubis. The last molar teeth are not yet above the gums; his hands and feet resemble those of a person less than twelve years old, both as regards size and delicacy of appearance; his habits, games, propensities, and tastes, are all those of youth. Females appear to possess no more attraction for him than males, and neither when questioned, nor when observed without his notice, has any thing but the indifference of a person not yet arrived at puberty been discovered. His virile organs appear as undeveloped as those of a child of 6 or 8 years. In this respect no deficiency is laid to the account of Bushmen, and if the present specimen were 18 or 19 years old, why should he not display the maturity of his age by some appreciable signs, as well as the propensities of his tribe; or at any rate a virility in some degree proportionate to his physical and mental vivacity.

According to Martin, the "Prognathic race" of the human species, a term derived from Greek words expressive of the great prominence of the maxillæ or jaw-bones; and to which race the present individual belongs, is composed of four classes, the Negros, the Hottentots, the Papous, and the Alfourous.

The Hottentots consist of the Namaquois, Coras, Gonaquois and Saabes, or Bushmen. This race is thus designated: Jaws prominent and large, incisor teeth *oblique*, forehead narrow, head compressed on the sides, cheek-bones high, lips thick, nose flattened, nos-

trils widely opened, hair woolly and matted, sometimes frizzled, stiff and long, beard sparse and stiff, color deep black or tawny and yellowish.

The subject of this paper differs strongly from many of these characteristics. His teeth are vertical, his jaws are not particularly prominent, eyes are not oblique, his forehead is neither narrow or receding, nor very low. In other respects, however, he agrees with the description, but yet appears of a much more elevated character than the Saabes, who are placed at the foot of humanity.

In conclusion, your committee congratulates the Lyceum upon the opportunity the Lyceum has enjoyed to study an individual possessing such interesting features, but is of opinion that the present specimen does not suffice to draw general conclusions in regard to the Bushman tribe, as well on account of his youth, and his perhaps doubtful lineage, as the differences he presents from the accepted descriptions of this obscure tribe, but considers him a valuable type for comparison when future opportunities may occur.

Arthur B. Stout, M. D.
John L. Le Conte, M. D.
Theo. C. Tellkampff, M. D.

Art. II.—*On the Symptoms, Phenomena, and Exciting Causes of Inflammation.* By J. P. Batchelder, M. D., [Read before the New-York Academy of Medicine, September 1st, 1847.]

Mr. President,—I propose this evening to make a few remarks on the symptoms, phenomena, and exciting causes of inflammation; a disease upon which so much has been written, and which is so well understood, by the Fellows of this Academy, that I am not without apprehension lest I should fail to render an equivalent for the attention which will be vouchsafed by the kindness and courtesy of my audience.

Having, however, seen no pathology of this disease, from which the indications of cure, and the methodus medendi seemed to flow as natural, regular and legitimate deductions, the object of this paper is to propose, for consideration, a theory which may remedy that defect. Whether the effort will be crowned with success, or the views presented meet with any favor, other than a candid hearing in this learned body, is to me quite problematical.

THE SYMPTOMS

of inflammation are redness, swelling, pain and heat. "Rubor et tumor, cum calore et dolore" in the pithy language of Celsus.

Although the assemblage is sufficiently characteristic of the disease, yet no one of the group can be considered pathognomonic.

Increased heat, as a positive quality, is only a contingency, or an occasional concomitant, and therefore, we shall regard it simply as a mere sensation, and trace out the laws by which it is governed in that relation.

1. Redness arises from an increased determination and admission of blood into the vessels of an inflamed part, and particularly such as in a state of health circulate colorless fluids. This color is not always very apparent in the early part of the disease; but becomes more and more conspicuous during its progress. We look upon it as the most important symptom;—indeed, we deem it essential; for upon it, or rather its cause, all the other phenomena depend. Although sometimes present without inflammation, yet it is believed that inflammation cannot exist when it is absent. By the degree of redness we may judge with considerable accuracy of the stage, rapidity and violence of the disease; the color of a part being a pretty sure index to its circulation.

TUMEFACTION, OR SWELLING.

2. To a certain degree swelling occurs in all inflammations, internal as well as external, although not so apparent in the former as in the latter. Like increased redness, it is generally proportionate to the intensity of the disease, but is, however, much modified in that respect by the greater or less density of the part affected.

An over-distention of the capillary vessels is the first link in the chain of causation. As the capillaries like the hollow viscera, have no power of distending themselves, the manner in which they become distended, or over-distended in inflammation, may be more properly considered when we come to discuss the modus operandi of the causes of that affection; we shall therefore assume for the present that by the influence of those causes, the capillaries of a part are induced to forego their resistance, and that consequently, in accordance with the principle in hydraulics, that fluids move in the direction in which they meet with least resistance, more blood will flow into them, and continue to do so until they become distended, and, in fact, over-distended, in proportion to the diminution of their resistance and the intensity of the *vis a tergo*. When this over-distended state has continued for some time, the pores which are analogous to the sphinctered outlets of the larger organs, like them, under similar circumstances, relax and allow the fluid contents to pass; hence the effusion of serum, albumen and coagulable lymph, which is the second link in the chain, and constitutes the main cause of the tumefaction.

Now the right performance of the function of a capillary or hollow viscus, having an outlet, depends as much upon its mouth or pore as upon the vessel or viscus itself: in other words, to perform the function properly, there must be a just equilibrium between the force with which the vessel or viscus contracts and that with which the pore or sphincter resists. When the distention is only moderate or normal, the vessel acts gently, the pore relaxes, and effusion or

transudation ensues. For example:—when the cutaneous capillaries are only normally distended, we have neither more nor less than insensible perspiration; and this degree of distention we designate by the figure 3; if the distention be increased to 4, there will be sensible perspiration; if to 5, copious sweating; if to 6, the skin will be dry and hot; the sphincters or pores holding tight in consequence of the over-distended state and violent contractile efforts of the cutaneous capillaries, in which respect the analogy between them and their pores and an over-distended bladder and its sphincter holds.* Be it remembered, that this distended state of the capillaries of a part constitutes one of the items, a small one it is true, which go to make up the tumefaction; but the effusion of serum, albumen, fibrine, and sometimes blood, are the principal causes.

How does this effusion take place, and by what law is it governed or regulated? We come to the principle. If from any cause the capillaries be suddenly or violently distended, or over-distended, and consequently prompted to act violently, or inordinately, as in inflammation, the pores, like the sphincters of the bladder or anus similarly circumstanced, act or resist no less violently and inordinately, and consequently suffer no fluid to escape; and this we conceive to be the precise state of the vessels and pores in the incipient or early stages of that disease, and is analogous to that of the vessels on the surface during the hot stage of an intermittent, in which the skin is dry.

At this period, there is no other swelling than that occasioned by the distended state of the vessels of the part. There is no effusion of serum; none of fibrine. There is mere congestion. How is the effusion produced? The vessels, over-distended—the pores, constricted and resistant. How then, I repeat, is the effusion produced? The principle is this, that rest shall succeed to action. This law results from necessity and is consequently universal, reaching and controlling all vital movements; hence, vascular contraction is followed by the spontaneous relaxation to which we have alluded, and which generally, is in proportion to the previous contraction. Therefore, in obedience to this law, the pore or sphincter, (see the preceding note,) as the case may be, which has been for some time resisting powerfully and completely, the inordinate action of the vessel or viscus, and of course preventing the transmission of the fluids by which the latter (the vessel or viscus,) were distended, now in its turn foregoes its resistance, relaxes and allows the effusion of serum or fibrine to take place into the inflamed part, or perspirable matter over the whole surface as in the sweating stage of an intermittent. In both cases, the over-distended vessels are thus relieved. The final end of this effusion is to empty the vessels; in other words, to cure the disease. This is the method of nature and also of art; a fact of which the practitioner should never lose sight.

* In an over-distended state of the bladder, from long-continued retention, its sphincter often relaxes, and incontinence ensues; a circumstance which not unfrequently misleads the unwary practitioner, and induces him to forego the introduction of the catheter, the only sure remedy for the retention which still continues, and may cause the bladder to ulcerate, and the unfortunate patient to lose his life.

If this want of equilibrium between the vessels and their pores continue but for a short time and the effusion be but slight, resolution is said to have taken place, which is one of the terminations of inflammation mentioned by systematic writers; but with all due deference, we are disposed to consider the effusion by which the vessels are emptied and relieved, as the only legitimate termination of that disease; if indeed we except gangrene.* If the state of distention continue several days, the effusion may be considerable and of a mixed character; as serum, albumen, coagulable lymph or even blood. It constitutes the principal or main cause of the swelling, the second symptom. We are, however, ready to admit that want of absorption and the generation of new vessels, tend in some degree to augment the tumefaction, and here it is proper to remark that the formation of new vessels is often exceedingly rapid, which with the secretion of pus, has been reckoned among the causes of swelling, and therefore, we shall proceed briefly to consider them.

Let us inquire, *in limine*, why are these new vessels formed? and why is pus secreted? The effused fluids, if too great in quantity to be absorbed, will remain an incumbrance greatly interfering with, or wholly suspending the function of the organ or part; therefore, to get rid of them, the suppurative process is instituted by nature in the simplest manner possible; to wit, by the formation of new vessels and consequent organization of the effused lymph. The secretion of pus then is the final end of the formation of new vessels. How are they formed? On this point we shall hazard a conjecture, which, like the theory promulgated this evening, was framed many years ago; that a globule of blood escapes from a vessel, probably the same which furnished the lymph, through which it (the globule) makes its way, and thus forms a channel along which other globules following close and in rapid succession, pass and continue to move until the track becomes a vessel;—similarly-occurring results take place on every side;—globules after globules escaping from other vessels, and passing in all directions, till channel runs into channel, and globule joins globule, when they will move in that direction in which they are most forcibly impelled by the *vis a tergo* which continues to urge them along, until the channels are converted into living vessels, temporary or permanent, according to subsequent circumstances. If the newly-formed vessels, or the old ones, which according to some have become elongated and made their way into the effused lymph, unite so as to carry on the circulation in that substance, thus vascularized and organized, the inflammation is said to have terminated by adhesion, which according to our doctrine is in-

* When inflammation terminates in gangrene, the over-distended capillaries "resist unto the death." On the contrary, we may have gangrene from an over-constricted state of the capillaries, as in the gangrene of old people; also in that from interrupted circulation, &c. &c. This constitutes the dry gangrene of authors and is not preceded by inflammation. In the first instance the vessels resist until they lose their vitality. In the second they contract until they die. The resistance and the contraction are both painful, and are followed by the same result.

correct; but when the quantity of coagulable lymph, or of other fluids, is too large to admit of this kind of inosculation, the adhesive process fails altogether, and the suppurative is instituted, and pus secreted for the purpose already stated. But how is pus, which is said to be "altered blood," formed? How is the blood "altered?" Where are we to find this modifying—this altering power? What are the agents by which the suppurative process is commenced, carried on, and consummated? It is believed that the capillaries wherever situated, whether in the areolar tissue, the serous or mucous membranes, or on the surface of the body, or a wound, will secrete pus whenever they become invested with a coating of coagulable lymph, and that this is the main, if not the only contingency required for altering the blood, and changing it into pus. Upon this principle, the primitive vessels, if elongated into the adventitious lymph, will secrete pus. But the business, so far as an abscess is concerned, is probably done chiefly by the newly-formed vessels, which are little other than imperfectly animalized tubes, that can exert no other than a mere altering influence upon the blood, which converts it into pus.

The first function then, of the newly-formed, or the elongated portions of the primitive vessels, when prevented from inosculating by the quantity of lymph, is the secretion of pus.

According to the theory advanced, the disease terminated with the effusion which emptied the vessels; therefore, suppuration is to be considered neither a termination of inflammation, nor a cause of tumefaction, as a symptom.

PAIN.

3. The third symptom of inflammation is pain; the cause of which does not appear to have been explained in a very satisfactory manner. It was supposed to be owing to the swelling which put the nervous fibrillæ in the inflamed part upon the stretch; but opposed to this is the fact, that the pain and sensibility are often not at all commensurate with the degree of tumefaction: for we frequently find a part under inflammatory circulation exceedingly sensitive when there is little or no swelling;—and also, a part very much swollen, as in dropsy, without either pain or increased sensibility; the latter is, indeed, sometimes diminished, although the nervous fibrillæ are greatly stretched. Pain, in all cases, without a single exception as we believe, arises from one of two causes: an over-constricted, or an over distended state of the vessels. The latter is their condition in inflammation; and the pain which results from it precedes the tumefaction from effusion. On account of the importance of pain as a symptom of inflammation, and the practical inferences to be drawn from it, we shall examine whatever relates to it with considerable care. In accounting for this symptom, the influence which red or arterial blood (we use the term synonymously) has in exalting the sensibility of a part, seems to have been disregarded, or entirely overlooked; but it appears to the speaker of sufficient moment to be entitled to consideration, and, therefore, he risks the observation

that this connection between the sensibility of a part and the quantity of arterial blood circulating in it, is believed to be so strict and invariable that no portion of the body through which red blood circulates, is wholly insensible; and that no part destitute of red blood is endowed with sensibility; and furthermore, that this holds as well in the morbid as in the healthy condition of parts—a consideration that greatly enhances the value of the doctrine. It may therefore be laid down as an axiom in physiology and pathology, that whatever diminishes the influx of red blood into a part, or forces it out, produces a corresponding diminution of its susceptibility of impression. Fear and cold, by causing the contraction of the capillaries on the surface, and consequently forcing the blood out of them, diminish its sensibility; hence the torpor and insusceptibility of impression which so uniformly accompany their influence. Joy and warmth, by relaxing the vessels, and the consequent admission of red blood, increase the susceptibility of impression. Cordials taken into the stomach produce the same effect. If, in a doubtful case, we wish to determine the hardness of the pulse, or the existence of matter in an abscess, we almost instinctively rub the fingers, or hold them near a fire in order to exalt their sensibility of touch by soliciting to them a greater quantity of blood. It is needless to multiply proofs that the sensibility of a part is very closely connected with, if not absolutely dependent upon the quantum of blood circulating in it, for every one must be acquainted with the fact, that the nails, hair, bones, cartilages, fibrous membranes, &c., which, in their normal state admit no red blood, are devoid of sensibility.

When the capillaries of a part are distended beyond their healthy condition, resistance is excited, and an effort to expel the distending fluid ensues, both of which circumstances are productive of pain, which, upon the principle laid down, is greatly aggravated by the presence of arterial blood, which has exalted the sensibility. Again, when the capillaries are contracted much below their normal or healthy standard, this over-contraction, like the over-distention just mentioned, is also the cause of pain. In fact, these opposite states, when extreme, produce sensations so nearly alike that it is quite difficult, especially when an internal organ is involved, to diagnoze between them without adverting to collateral circumstances.*

This third symptom, pain, is not only a matter of deep concernment to the patient, but of much consequence to the practitioner, when rightly and properly understood; for it greatly assists him in determining what particular tissue or structure is affected. In health, every function is performed without exciting pain, uneasiness, or even consciousness of action; when, therefore, either is experienced, the sensation resulting from perception of change indicates disorder

* The most serious consequences have often ensued when these affections have been wrongly diagnozed, which might have been readily prevented had the question, whether the pain and other symptoms arose from an over-contracted or an over-distended state of the vessels of the part, been fairly put, duly considered, and fully answered. This matter, though important, and intimately connected with our subject, must be passed over with this brief allusion, which will be comprehended by every gentleman of experience.

or disease. Now, similar changes can take place in similar structures only;—pain or feeling being the perception of change, it likewise follows that similar feelings can be experienced in similar structures only; and dissimilar feelings in dissimilar structures only;—different sensations always indicating different organisms. Now, the mechanism of every structure is peculiar to itself; consequently each tissue must have its own peculiar mode of acting, and of course its own kind of feeling. The final end of this arrangement is probably conservative, for we observe that the feeling of each part is that which is elicited by causes adapted to derange its function, or disorganize its structure, the uneasy sensation prompting us to procure their removal.

The fact that a great number of feelings, which have been supposed to arise from the peculiar properties of the external cause or agent, may be produced without any external agent or cause whatever, goes to prove most conclusively, that the immediate object of perception is the vital change in the organ itself rather than the physical action of the cause applied; therefore, it is quite immaterial to the surgeon, or practitioner of medicine, so far as the location of the change is concerned, whether an external or an internal cause be the agent by which it is effected. As we have not time to go into an argument to prove that feelings are necessarily modified by structure, we shall only allude to the fact that the same sensation may be produced by many different physical causes, which can be explained in no other way than by supposing that the action which results from their agency is so modified by the structure of the part that it (the action) is and must be the same in each particular instance, hence the same sensation is produced. Nausea, for example, is excited by emetic drugs of quite different qualities; and a great variety of other physical agents, and very often in the absence of all such causes; by the mere action of the stomach, as in inflammation of that organ, or even a blow on the head, by sailing, whirling, or by mental emotion, yet the sensation is the same, however variant the cause; and we know where to locate the derangement, because the stomach, from its peculiarity of structure, is the only organ in the body calculated to experience that sensation. Besides the mechanism of an organ as a whole, by which it is suited to perform its destined functions, there are, it should be recollected, various textures which enter into its composition, and which, if they could be acted on singly, without any other being affected, would always give rise to the same sensation For instance, if there be inflammation in any part of the alimentary canal, and the patient complain of a sense of burning, we locate the disease mainly in the mucous membrane;—of a griping pain which goes and comes, we infer that the muscular coat which contracts painfully, and relaxes spontaneously, is involved;—of sharp, shooting or lancinating pains, we are quite sure the disease has extended to the peritoneal covering of the intestine, because those are the sensations peculiar to serous membranes. These several tissues are so intimately connected, that one can seldom be much affected without causing disorder in the others, which may be so much more intense in one than in the rest as to obscure the sensa-

tions peculiar to them. Again, take ophthalmia as another example:—if the patient complain of a feeling as if a particle of sand were in the eye, we know that the seat of the complaint is in the conjunctiva;—of spasmodic pains, we infer that the muscular tissues about the organ are in trouble;—of a sense of constriction or of resistance, it is a sign that the sclerotic is involved;—if there be great sensibility to light, we suppose that the retina, and perhaps the choroid also, are in the same predicament. If the phlogosis be in the skin, we shall hear of itching,* smarting, increased heat, or burning;—if in the muscles—of the sense of fatigue, of cramps or spasms, which indicate inordinate or convulsive action; symptoms which are so common in fractures, and not unfrequent in inflammatory rheumatism;—if in the ligaments—of the sense of contortion or distortion;—if in the stomach—of burning pain and nausea;—if in the bowels—of griping, &c.;—if in the rectum—of tenesmus;—if in a bone—of ache, the only sensation peculiar to the osseous structures; if that ache resemble the toothache, we judge that the medulla or its membrane is implicated;—if accompanied with a tensive feel—that the periosteum is complicated;—if with a sense of weariness or lassitude—that the difficulty has extended to the muscles. If the disease affect the fibrous membranes, which are inelastic, there will be the sense of constriction or of tightness; for instance, when the dura mater is affected, the patient will tell you, if particularly asked in relation to this point, that the feeling is that of constriction within the scull and about the brains, as if they were tied up in something;—or, when the pericranium is affected, that the sensation is as if a handkerchief were bound tightly about the head;†—or the pia-mater or arachnoid—that the pain is lancinating, shooting;‡—streaming, electric-like pains belong to the nerves of animal life, a fact so notorious, that no practitioner of the present day would venture to locate the pain of tic-doloreux in any other part than in a nerve.

The final end of this variety of sensation appears to be, as suggested, the welfare and protection of the organ or structure in which the feeling originated; otherwise, what would prevent us from carrying exercise to an excess which would destroy the muscles, if the sense of fatigue, which is peculiar to them, did not remind us of the propriety and necessity of suspending our efforts? Or what would save us from starvation if the physical and physiological changes in the state of the stomach did not excite the sensation of hunger? How should we know that a joint had been sprained or dislocated

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* This sensation (itching) is never experienced except when the cuticle is concerned, hence it is always a sign that a wound or ulcer is healing. When the patient complains that the sore itches, the intelligent surgeon knows that cuticle is beginning to form on its margin.

† The sensations ascribed to the above-mentioned membranes often arise from directly opposite conditions of their capillaries. In sick headache, and the cold stage of an intermittent, those vessels are constricted; in the hot stage, and in inflammation, they are over-distended.

‡ Although the pia-mater and arachnoid are not fibrous membranes, yet I chose to mention them in this connection, on account of their being so generally involved in the same category.

if the ligaments did not experience the sense of distortion, which is peculiar to them.

INCREASED HEAT.

4. The fourth symptom, increased heat, is by no means essential, or even concomitant. Although in external inflammations, the temperature, as measured by the thermometer, almost always exceeds that of the surrounding parts, it is now very generally conceded that it seldom, if ever, transcends that of the blood in the heart, and is never commensurate with that indicated by the feelings of the patient. When secreting surfaces are inflamed, there may be the sensation of increased heat, with no actual increase of temperature, unless the disease is so severe as to stop secretion. Regardless, then, of temperature, we shall consider this symptom as a mere sensation.

Now the sensations of heat and cold appear to be almost entirely confined to the external surface of the body, because that alone is subjected to changes of temperature which might be detrimental. If those sensations be felt at all in deeper-seated parts, it is with vagueness and indistinctness; for in them they would be superfluous; because the object, let it be remembered, is not the caloric entering or leaving the body; but the perception of physical change in the part, hence the application or abstraction of caloric, the appropriate physical cause of those sensations is not at all necessary to their production; they may be produced by any cause whatever which occasions a distention or shrinking of the capillaries of the skin, the part most liable to be affected by the excess or defect of caloric, and therefore designed to experience the sensations of heat and cold. From these premises, the conclusion is drawn that this fourth symptom of inflammation is seldom present unless the skin or mucous membrane in its immediate vicinity is involved, and that it always indicates a distended or over-distended state of the capillaries of the part, and gives intimation that changes are going on in the tegumentary structures which interfere with their functions, or threaten their integrity.

OF THE EXCITING CAUSES.

Inflammation is produced by external agents acting mechanically, chemically, or physically upon any part of the body; or by causes affecting the whole system; or it may arise spontaneously—that is, without any apparent cause. We shall endeavor to trace out the connection between the causes and the phenomena; in other words, to explain the manner in which the former operate in the production of the latter, and the principles upon which their operation depends, and also to show, if we can, that the facts and the theory harmonize. In the explanation of the symptoms it was argued that the redness proceeded from the admission of red blood into vessels which previously circulated colorless fluids only; that the tumefaction arose in part from distention of vessels; but mainly from the effusion of serum, albumen, fibrine and occasionally of blood; that the pain, modified by the structure of the part, and heightened by the influence of arterial blood, resulted from the distention and over-

distention, and consequent resistance of the capillaries; that the sensation of heat which was present only when some portion of the skin or internal tegument was involved, was occasioned by an increased determination of blood, to one, or the other of those tissues by which their capillaries were over-destended, the state common to all vessels, subjected to the disease.

1. How in accordance with the doctrine promulgated is this distention or over-distention of the capillaries, the *fons et origo*, the *sine qua non* of all the phenomena of the disease produced by causes acting mechanically, chemically or physically? The blood, incompressible as water, moves through the arteries by an impulse from the heart, and makes an impression at the same instant like a solid upon the capillaries in every organ, that is somewhat in proportion to its own momentum and their resistance, which (resistance) in health is supposed to be equable throughout the system, therefore, a due equilibrium between the impulse and the resistance is maintained; but if a cause be applied which takes off, or diminishes the resitance of the capillaries in any part, the blood, like other fluids, moving in the direction in which it meets with least resistance flows in and distends those vessels, which forego their resistance and consequently cease to oppose its admission even if the action of the heart be not increased; but if it be, the impetus will be necessarily augmented; and the distention in the same proportion greater and more rapid. In what way do causes of this class act so as to take off the resistance of the capillaries in any part; or induce them to lessen their resistance and suffer themselves to be distended, or over-distended? The fluids contained in the capillaries, constitute the natural stimulus, which prompts them to action or resistance.* When the vessels are healthy and their contents natural in quantity and quality, action and reaction, are duly balanced and every function normally performed. Now, then, it is an axiom in medicine, which has obtained since the days of Hippocrates, with whom it probably originated, and is acted upon by every practitioner in his daily walks, that the stronger effaces the weaker impression. If, therefore, an impression be made mechanically, chemically or physically upon a part which is stronger than that made by the fluids on the inner surfaces of their containing vessels, the latter will, in accordance with this axiom, which is in fact a law of system, cease their resistance, and yielding, suffer themselves to be distended, over-distended, and stretched, until they are excited to resist and that painfully: and as most of the exciting causes of inflammation belong to this class, and are of a painful character, their modus operandi is accounted for in that way.† We repeat, the impressions made by all or nearly all the

* Upon this principle, rests the whole doctrine of counter-irritation. If the external irritant make an impression, or excite an action, stronger than that going on within the diseased part, relief may be expected to follow. If otherwise, the symptoms, especially the pain, will be aggravated; the rules to be observed in order to secure the desirable result, cannot be considered in this place.

† If the cause or agent be of an opposite character and make a pleasant or an agreeable impression, provided it be stronger than that made by the fluids within the vessels, the result will be the same.

causes of inflammation are painful and also external to the vessels of the part on which they act; therefore, upon the principle laid down, they induce those vessels to relax and suffer themselves to be distended. If the cause be sufficiently powerful and the relaxation sufficiently extensive to bring the vessels of the heart into an analogous sympathetic relaxation; or in other words, to induce the capillaries of that organ to do what has been done by those of the part to which the cause has been applied, i. e. relax and admit more blood into its texture by which it, as a whole, is stimulated to increased action, the pulse will become stronger, more frequent, full and perhaps hard, and the blood be sent with greater force to all parts of the body; but finding less resistance in that, to which the exciting cause has been applied, much more will be forced into it, and its vessels in the same ratio over-distended and stretched, and the inflammation more perfectly developed and aggravated. If the vessels of the heart do not sympathetically relax and that viscus do not, in consequence, act with increased energy, there may be congestion only: Hence the same cause may produce congestion in one case and active inflammation in another. Upon this principle we explain the fact that genuine inflammation so often succeeds to simple congestion.

2. Causes affecting the whole body.

We have stated that the capillaries receive at the same instant, over the whole body, the impression of the blood sent by the heart, and that they, being the antagonists of that organ, exert simultaneously in every part an equable resistance to that impression, and that in this way the uniform distribution of the circulating fluids is maintained. How then is this equilibrium disturbed by causes affecting the whole system so as to induce inflammation? Cold and malaria belong to this class and excite a general contraction of the capillaries throughout the entire body, which is followed by a spontaneous relaxation commensurate in extent and degree with the previous contraction; if under such circumstances any organ or part from predisposition, hereditary taint, disease, injury, age or sex, be weaker than the rest of the system, its vessels, having less power of resistance, will yield and be over-distended, an effect which will be greatly enhanced by the increased energy with which the heart will act in consequence of its own capillaries having simultaneously with those of the other organs relaxed and of course admitted more arterial blood into its very textures as well as into its cavities. This class of causes sometimes act upon another principle. If the cause, extensive and powerful, be applied to the surface, the vessels of some internal organ in obedience to the law that the stronger impression effaces the weaker, may relax and become over-distended and inflammation follow, although it may not supervene until several days after the application of the cause which has disturbed the harmony of the circulatory system. Every gentleman's experience will suggest instances in exemplification of this principle.

3. Inflammation may arise spontaneously; or without any apparent exciting cause.

In such cases, which are quite rare, there is weakness or great

readiness in the capillaries of some part to relax and yield to the distending influence of the fluid, which they contain; hence causes which are not sufficiently strong to excite consciousness of action in the mind of the patient or attention of the physician or friends, are, nevertheless, capable of disturbing the equilibrium between the distending and resisting forces of the vessels;—and by the subsequent yielding of the latter, more blood is continually admitted until they become over-distended and resist painfully when all the phenomena of inflammation follow in train. I have not had time to pursue this branch of the subject further; nor do I deem it necessary, and shall therefore close with the remark that organs to which in the economy of the system, a greater quantity of blood is sent, are for the time being more subject than other parts to inflammation induced in this way.

ART. III.—*On Milk Fever, and Abscess of the Mamma.* By J. H. SHEARMAN, M. D.

IN a former number of the Journal, I treated the subject of the diseases of pregnancy, showing that they all arose from the altered condition of the blood, consequent on, or incident to, the process of *gestation.* I propose in this article, to show that the diseases consequent on *lactation* arise from the same cause—the altered, abnormal state of the blood.

I have previously laid down the position, that health invariably requires the blood to be in its natural condition, as respects the number, the quantity, and the quality of its constituents. Excess, deficiency, or impropriety of the constituents of the blood, is fatal to the pretensions to health.

All poisoning—all fever—all inflammation, indeed all disease, is attended with, preceded by a change in the condition of the blood. If a person die from taking opium, arsenic, prussic acid, or any other mineral, vegetable, or animal poison, the cause of the mischief is, the poison in the blood, and the change produced in its constituents.

It is true, that certain philosophers have propounded to us that there are some poisons which do not operate upon the blood, but simply on the nerves, or even—finer still—the nervous influence. For my part, I have no fear of such poisons. If they do not chemically act upon the blood, there is no cause to be afraid of them; water itself cannot be more harmless. In what way do laughing gas, chloroform, and ether operate, but on the blood, by being inhaled? In what way do these substances cease to operate, but by being exhaled, or passed off from the blood some other way? The philosophy of matter, whether organized or unorganized, is one of tact and contact—composition and decomposition—formation, deformation and transformation; and all attempts to elude this—the true Baconian philosophy—end in transcendental fooleries, and lead men to those regions, where "entity and quiddity the ghosts of defunct bodies fly."

The condition of lactation is a natural one, not necessarily diseased. The glands of the breasts have been enlarging and multi-

plying during gestation, preparatory to their function being called for; and as soon as the sustentation of the fœtus in the womb, by the direct use of the mother's blood ceases, the process of sustentation at the mother's breast commences; by the infant imbibing, digesting, and assimilating the mother's milk.

In this phenomenon of lactation, two opposite processes take place in the mother and child. In the mother, the blood which formerly went by the uterus to supply the wants of the child, now goes to the breasts to form milk for that purpose. In the child, the blood which formerly was supplied direct by the mother, has to be made from the milk by the process of digestion and assimilation.

Both are chemico-physiological processes, and neither of them ought to be attended with disorder—yet how often both are. So frequent, indeed, is the occurrence, that it is regarded as the natural condition. I hope to show that this is an error of a gross and dangerous kind; and that manifest impropriety and mismanagement on the part of the mother or her attendants, or both, are the remote, if not the proximate cause, of most of the ailments of lactation, as well as of gestation.

The process of labor is a violent action of the parturient organs, but it is a natural process. It is not like fever, nor inflammation, nor a rupture, nor a luxation, nor a wound, nor a fracture. Any of these, indeed, or all of them, may accompany labor, but none of them is the labor.

The functions of mastication, deglutition, digestion, defæcation, and micturition, are not more strictly natural than is parturition. Any one of them may be accompanied with disorder and danger, and may terminate in death; but it is by no means the necessary conquence of such functions.

On the birth of a child, and expulsion of the placenta, there is of necessity, an escape of a certain portion of blood from the placental attachment of the uterus—in most cases sufficient to be considered a large depletion—ample enough to relieve the turgescence of the vessels, whose functions of nourishment have just ceased so suddenly. I suppose that in every natural labor, the quantity of blood lost is exactly what is needful to be abstracted. The lochia are simply the drainings which ooze out from the divided vessels, until they are united and closed.

Now begins a new process—the formation and secretion of milk. This is as natural a process, and ought to be as healthy a one, as the formation and secernment of bile or urine. The milk is a composition which differs from blood in many important particulars. It contains more water, more of the phosphates of lime, potash, magnesia, and iron; and contains caseine butter and sugar, which blood does not contain; and it does not contain fibrine, albumen, and hematosine, which are found in blood.

The elements of nutrition were *decerned* from the blood of the mother, in the body of the child, whilst in the uterus; now they are *secerned* from the mother's blood in the breasts. The condition of the child in the uterus did not require more than a portion of the

contents of the blood which was sent there, and that condition is still existing.

Bone for the frame-work of the body; brain and nerve for the sensations; skin and fat, for covering and warmth, are the principal things required. The milk contains the elements requisite for these purposes. The muscles of an infant, are a very slight species of fibrinal texture, compared with those of a more matured person, and every tissue is less firm and solid, than in those of man and woman. The flesh of a child, indeed the flesh of all young animals, is tender and delicate.

The food for young persons is, therefore, of necessity, different from that of older persons, and infants require lactaceous food, not merely because it is provided for them, but because it is their appropriate sustenance.

The secernment of milk from the blood, takes some elements away from it, which are necessary to its integrity, and by consequence disorders it if not restored. When this first occurs, there is a change in the sensations and appetite. Usually there is some headache, loss of sleep, and slight fever. Is this wholly natural? Let us examine.

The elements which are taken out of the blood, are the phosphates of lime, and alkalies, a highly nitrogenous compound, caseine, and the triple compounds of butter and sugar. The blood, then, instantly lacks these elements; and to keep it in its proper order, must have such food as contains them. What is the usual food for women under such circumstances, as prescribed by grave and learned physicians, growling and dogmatic nurses and grandmother-taught mothers?

Gruel, composed of the *albuminous* products; fluids containing the *farinaceous* or starch products; panada or bread and water; and *gelatinous* fluids; some of them with salt, some with sugar, and a little spice. These substances cannot supply what the blood needs, and they are very frequently so distasteful, that they are taken as medicines, or, as it is curiously termed, "dieting." Of all ignorant assumptions of our vain conceit, that of interfering with the instinct of appetite—which is the infallible demand of infallible laws—and not only placing our arrogant veto upon compliance with it, but reversing its orders; this is certainly the height of impudence in "learned ignorance."

Happy is it for the mass of mankind, that they are so seldom under "sound medical surveillance;" or they would never have one day's comfort nor enjoyment; and by consequence, never have a day's health. Do but deprive a man of his agreeable food, and give him a little calomel and antimony at night, and a little Epsom salts in the morning, and if he ever be well, a perpetual miracle must be wrought for him.

If a woman, performing the important function of lactation, at any other period of its existence than the parturient one, is compelled to live on such diet as the lying-in one, she is pretty certain to have fever, with headache and diarrhœa.

How utterly unobservant the mass of medical men are, on the

subject of food and appetite. The daily occurrence of person's loathing one kind of food and yet longing for another, of person's persisting in long-continued fasting on one sort of food with a constant appetite for food of another sort, of irremediable disorder attending one sort of diet and restoration to health attending another, seems to have no effect on the mass of medical men. Until an authoritative precept on the subject occurs in some standard work or is uttered by some famous lecturer, all the phenomena of nature, are worth nothing as instruction to the practitioner.

A woman, of apparently good health but anxious countenance, carrying a large child in her arms, called on me for advice for a distressing headache. I inquired if she suckled the child which she carried. She said she did. I wished to know what her food was, and she informed me it was bread and butter or crackers and tea. I inquired if she could not take any other kind of food. She said, she longed for good meat and vegetables and fruits, but she had been forbidden to use them. I told her to consult her sensations and trust to those, in spite of all the advice in the world. She did so, and her headache left her.

A lady of my acquaintance, but not my patient, who had suckled two or three children, and took great interest in poor married women, thought that there was no necessity for catering to the appetite so much in suckling; and that if the rich were to show how easy it was to suckle a child through the night, on a basin of gruel, instead of mutton chops and other substantials, it would be a good example and lesson for those who could not so easily procure them.

She therefore commenced her gruel regimen, and in spite of some qualms of stomach, and quakings of head, with womanly perseverance continued her gruel, until vomiting, purging, and fever ensued. Her husband being a man of good understanding, traced the whole of her disorder to the change in her food. She returned to her former substantial diet, and was cured of her maladies, and meddling with the diet of the poor.

To me the horrors of the Inquisition, where the ignorant bigotry of the priest racks the body with tortures, in the vain hope of crooking the mind that the divine laws of intellect make straight, are not more dreadful than the ignorant presumption of the "medicine man," who inflicts upon his "*patients*," (too true alas,) the denials of his prohibitions and the endurances of his administrations, in the vain attempts to force an organized being into order and health, by violating the immutable and irresistible laws of its nature.

If, when a woman commences the function of lactation, she have that kind and quantity of food, which her appetite requires; if she have good air to breathe, light enough to minister to the activity and gratification of the senses, warmth enough for comfort, and no more, as much of the external application of water to the skin as will purify and invigorate it, as much of the internal use of water as is required by her sensations, and "the liberty of the functions;" there is little doubt of her being in health. Woman was designed by God to bear and suckle children, and it is high treason against the wisdom and goodness of the Most High, to suppose that she must forfeit her health to perform her duties.

In most cases of lactation that have come under my notice, there has been a constant strife waged with nature, by the mother and her advisers, from first to last. The woman who undergoes the process of parturition and performs the office of suckling is removed from the influence of the benign laws of her nature, and put under the care of some man, who has no knowledge of the right or wrong of her condition, acquired by observation; but is a very obsequious follower of the "routine" of "obstetrical science," "practice of midwifery," and "puerperal observations," of renowned authors, or famous lecturers.

She is required to give up her judgment and feelings to the direction and control of old wives and nurses, and almost everything which she desires is forbidden and everything which she dislikes is forced upon her. A drink of cold water, though longed for like air by a fainting person, is denied her, on the pretence that it would chill her milk, and disorder her infant. Fruit is forbidden on the assumed ground, that it would cause "acidity." Butter and fat are "bilious." (Oh, that some one would tell us what "bilious" means!) Vegetables are "windy." Pastry is "heavy;" new bread is "poison." There is nothing left but dry bread, lean beef or mutton, oysters and crackers.

This is not the place for a dissertation on food; but as the food of a body composes the blood, the fluids, and the solids of that body, the more delicate and important the processes and functions to be performed, the more discriminating and particular will be the appetites and desires, and the more certainly will disorder ensue if the proper food be withheld or unsuitable food be administered.

Once, let the blood lack some of its requisite elements, or contain too much of others, and there is at once a breach of the corporal soundness, and organic integrity. The particles of the solids will not be deposited as in health; the fluids will not be secerned in their normal condition; the caloric of the blood will not be expended on the life and activity of the organs and muscles of the body; and therefore, of necessity, will accumulate, and shivering and heat, headache and nausea, lassitude and pain, will necessarily occur—fever will appear.

In most cases of lactation, when the milk begins to flow, there is swelling of the breasts, with some heat, and pain. The swelling is occasioned by the large quantity of milk which is secerned, compared with the quantity which is used by the child. The heat is caused by the pressure obstructing the circulation, so that the caloric is not only *mechanically forced* out of the solids and fluids, but also *chemically accumulated*, and given off in a free state, instead of being *chemically united* with the solids and fluids in the processes of life. The pain is produced by the two former conditions.

It is to me extremely doubtful, if any case of painful swelling of the breasts ever occur to a woman living according to the instincts of her being—obeying the laws of her nature. The only cases of it that I have ever known, have been invariably caused by, or at least accompanied with, the most marked neglect of, or resistance to, the demands of nature.

The room has been kept hot, close, and dark; the body covered

with a disagreeable excess of clothing—the breasts especially have been loaded, and all air carefully excluded from them. The smallest portion of cold drink has been forbidden like poison; and hot drinks administered, as though the preservation of life depended upon them. When the breasts began to fill, heating applications were applied to them, as brandy, oil, camphor, and other stimulants. If, indeed, the breasts had not swelled, they would most wonderfully have resisted every inducement to swell.

To such extremes of opposition to nature is this puerperal treatment carried, that it is thought dangerous to be clean and wholesome. To wash the body, and change the clothes and sheets, would be deemed an act of great outrage to the woman—inevitably giving her cold and producing fever!

Let us now see what part the medical attendant commits in these outrages on nature. He administers some sort of medicine, usually such as opium, antimony, calomel, nitre, rhubarb, senna, castor-oil, magnesia, &c. If he do not, what sort of a doctor is he thought to be? The observation of a nurse to me once, during my attendance upon a very sensible lady, who knew that obedience to the requirements of her being was of more value than many medicines, is precisely in point. "Of what use is a doctor," said this nurse, "if he do not give medicine, and interfere with diet?" Well-spoken ignorance.

The medical attendant has been educated to meddle with every thing in his way. He directs the light to be excluded—air to be carefully shut out—extra covering to be put on—"a gentle perspiration to be kept up"—(what a sweet, simpering piece of cataplasmal advice!)—recommends some particular sort of gruel as very "nourishing"—chicken soup or tapioca pudding as "strengthening without leading to fever or inflammation"—and suggests that too frequent change of bed and body linen is "very weakening!" "An absolute gentleman, full of most excellent differences, of very soft society, and of great showing!"

If there be any fever under all this maltreatment,—and why should there not be?—some calomel and castor-oil are given as "revulsives;" and some "neutral salt" as a "refrigerant." If there be aphthous mouth and tongue—as how could it be otherwise?—some soda and magnesia are administered, in order that the "acid crudities" of the offending stomach may be "corrected." Profundity of ignorance!

Were the physician but for one week compelled to suffer his own regimen, he would learn more of physiology and true pathology than by a three years' course at any college in the world. Suppose a person call upon his watch-mender for advice and remedy for some disorder of his gold repeater; and after looking, listening, thinking and considering, the watch-mender prescribes for it, "after the art of the apothecary."

He drops a little oil into the machinery, and tries what that will do. If that do not succeed, he next drops in a little caustic alkali, some potash or ammonia. If that be unsuccessful, he tries some powerful acid, the nitric or sulphuric. If this be unavailing, he boils it like an egg for fifteen minutes. If this should fail, he puts it into

ice. Should none of these succeed in remedying the mischief, there is nothing left but to submit to the condition, after such a display of science has been expended without any sensible avail.

Such is the treatment of a woman in confinement and lactation. Darkened and suffocated, sweated, purged and starved, forbidden all agreeable food, and forced to take what is disagreeable, and swallow more or less of poison. What can a woman be, under such circumstances, but a mass of misery and wretchedness? Once let her follow the unerring instincts of her nature, and parturition is at once relieved of half its dreaded sufferings. An Irish peasant's wife, or an Indian Squaw, if she can have what her unpoisoned, unperverted instincts want, is better off in the performance of her functions of gestation, parturition and lactation, than the queen of any empire in the world.

I shall pursue this subject in the next number, when I shall treat more of the practical application of my views.

ART. IV.—*Cases of, and Remarks upon, the Use of Chloroform in Natural Labor.* By EDWIN B. STIMSON, M. D., Resident Physician of New-York Lying-in Asylum. [Read before the New-York Obstetric Society, April 24th, 1848.]

BY the gratifying results of Prof. Simpson's practice with chloroform in cases of parturition, I have recently been induced to repeat his experiments under similar circumstances. And I now propose offering the gentlemen present a statement of my success with the article whose claims on our attention have been so strongly urged by the learned professor. Merely premising it was not without having heard from others or having entertained in my own mind objections against the use of anæsthetic remedies in labor, that I entered upon the employment of chloroform. Congestion of the brain, exclusion from the lungs of oxygen, an active and permanent vitiation of the blood, uterine hemorrhage from the absence of the usual contractions of the womb after delivery, delay from irregular uterine action, and last, though by no means inconsiderable with many persons, an interference with the operations of nature, and a contemptuous design upon the decree—"In sorrow shalt thou bring forth children"—were all presented as possible, and many of them as most probable objections to the practice of superinducing anæsthesia during labor. The following cases may contribute towards rendering our knowledge in the foregoing respects, less conjectural.

Case 1.—January 20th, 1848, Sarah ———, Madison-st., æt. 19, primipara; first stage, 6 hours; pains active at intervals of 7 minutes, advancing the head with each recurrence. When the tumor of the scalp began slightly to separate the labia, chloroform was inhaled from a handkerchief. Partial insensibility followed in two minutes; the patient answered questions sharply directed, and was

conscious of a prick or pinch of the skin; pains recurred at intervals of 12 minutes—were short and spasmodic, suddenly advancing the child from the retreat it had effected during the absence of uterine contraction. As anæsthesia continued, the patient gave evidence of suffering by a low moan, writhing and corrugation of the brow whilst a *pain* was upon her. A larger quantity of chloroform being administered, the woman ceased to give the least sign of sensibility. The pulse fell from 80 to 65 per minute, the respiration became deep and stertorous, and the action of all voluntary muscles suspended. The uterus continued its expulsive efforts, and succeeded in one of its contractions in expelling the child. Ten minutes afterward, it perfected delivery by discharging the secundines. Removing the chloroform, and allowing consciousness to return, the patient voluntarily said, "she did not know the child was born," that she "never would have a child without such medicine, cost what it would," and as an earnest of her gratitude for having it in this instance, made all possible haste to render her accoucheur, *l'amende d'or.*

Case 2.—January 22, 1848, Bridget ———, æt. 25; primipara; first stage, 10 hours; the os uteri fully dilated, the occiput resting behind the inferior portion of the symphysis pubis, and the uterus acting energetically. Chloroform was inhaled till perfect apathy resulted. Pains immediately diminished in frequency, force and consequent suffering. Pulse fell from 85 to 65; patient breathed, and had every other appearance of being in the enjoyment of a sound sleep. During the second half hour of administration, uterine contractions were carried suddenly to their highest point, and as suddenly relaxed. Third half hour, the pulse flew from 65 to 100—falling with a fresh application of the remedy, and rising as its influence subsided. By one of the jerky contractions of the womb, the child was expelled, without consciousness on the part of the mother.

No accident or unpleasant symptom succeeded delivery.

Case 3.—January 25, 1848, Ellen ———, æt. 25, primipara; in active labor 5 hours, when the mouth of the womb was found perfectly dilated; the occiput resting behind the inferior half of the symphysis pubis; uterus acting with usual vigor at intervals of five minutes, occasioning more than ordinary pain at this period of labor. The patient could with difficulty be restrained to her room; her shrieks were long and piercing, and her supplications for relief from her agony most imploring. Placental snuffle distinct; fœtal pulsation, 120. Chloroform was inhaled from time to time till the voluntary muscles became lax, the lower jaw fallen, the eyes closed, the respiration deep, and unconsciousness complete. During the existence of this state, the uterus seemed unaffected by the inhaled vapor in all respects, save the intervals of its repose, which were irregular in duration, sometimes very brief, at others extended much beyond their usual length. The countenance was somewhat flushed, this was however the only evidence of unnatural vascular determination.

Surface of the body and extremities continued natural in color, temperature and moisture. The fœtal heart in this, as in preceding cases uninfluenced by the inhalation. Labor terminated favorably during maternal unconsciousness.

Case 4.—January 29, 1848, Ann ———, æt. 33, confined with her second child, was relieved of great distress by a few drops of chloroform, after the head had entered the pelvic cavity. The temporary relief afforded by so small a quantity was extended at the entreaty of the patient, by a more liberal administration. Succeeding insensibility produced no variation in the activity of the womb; the child was soon born; the placenta followed in five minutes; and in no case have I observed less sanguineous discharge result from delivery. The patient awoke from her apparent sleep to express her thankfulness for the pain she had been spared.

Case 5.—February 7th, 1848, Ellen ———, Thompson-street, æt. 22; of nervous temperament, had been in labor 8 hours, when the os uteri became fully dilated; the head of the child resting on the perinæum—the patient almost frantic with pain at each contraction of the uterus. She "had heard of something to put them asleep when the baby was born," and begged for some of the medicine from my hand. Anæsthesia was produced, during which the woman was safely and expeditiously delivered of a male child. The pulse was observed to diminish in frequency as the influence of chloroform was first felt by the system. The uterus also, for several contractions, was less powerful—it afterwards regained its former strength and efficiency. Respiration became and continued, throughout the chloroform exhibition, rather slower and deeper than natural.

*Case*6.—Bridget ——, æt 19, primipara; employed chloroform to annul the pain that would arise from the passage of a child through the inferior strait of the pelvis. The labor had progressed very favorably till the head rested on the perinæum, when inhalation commenced; the patient after a few seconds' singing passed from a brief stage of exhilaration to a state of partial, and finally of perfect sopor. Neither the pulse nor the uterus was materially affected. Delivery terminated whilst the patient seemed to sleep, awaking from which she inquired whether she "would not sooner get through since she had had a fine sleep." Upon being assured the child she heard crying in an adjoining room was her own, tears of joy and gratitude fell down her cheeks.

Case 7.—February 24th, 1848, Mrs. ———, Madison-street, a large woman of nervo-sanguine temperament, about to be delivered of her 9th child, inhaled chloroform, when the head had arrived at the inferior strait. In two minutes she commenced a muttering song, soon became silent, and at length apathetic. The pulse feebly beat 50 per minute, the uterus omitted several contractions, when it was thought prudent to withhold the vapor. Consciousness returning, it was again breathed, though more sparingly; the uterus

meanwhile entered upon duty and shortly afterwards expelled its contents satisfactorily to all parties. Some difference of opinion existed in the minds of the foregoing and the present patient, for whilst the former anticipated benefit from sleep, the latter asked whether "it was possible for her to get well as soon from having slept as she otherwise would do;" scarcely crediting the statement of her friends that her child was in the hands of a nurse.

Case 8.—February 27, 1848. Elizabeth ——, Walker-street, æt. 23; 2d child, chloroform inhalation commenced when the head of the child occupied the lower portion of the vagina. A few seconds of incoherent muttering were followed by hurried breathing, (50 respirations per minute); a feeble, indistinct pulse, (60 beats per minute); and an arrest of expulsive efforts. In the course of 30 minutes breathing became more natural, the strength of the pulse restored, and the progress of the labor advanced. Patient soon afterwards ejected the fluids contained in her stomach without apparent effort or consciousness; subsequent to which, nothing untoward occurred. The woman was happily delivered during anæsthesia.

Case 9.—Mrs. ———, Centre-street, æt. 20, primipara; found at the 8th hour of labor, the vagina bathed in mucous; the membrane ruptured, the head low in the pelvis, and the pulse 80 per minute, vigorous pains recurred every 10 minutes; patient's sufferings from the forced expansion of the soft structures unusually great, inhalation of chloroform permitted, a deep sleep and a suspension for 25 minutes of uterine contractions were the only perceptible consequence of the inhalation. The uterus returned to its former degree of activity as the first general impression of chloroform subsided; the pulse and respiration remained natural; a happy smile occasionally played over the countenance of the woman, who in half an hour awoke to be informed of her new relation to her family—with an expression unchanged, an eye bright and steady, an intellect unobscured and with perfect freedom from headache, nausea, or other unpleasant sensation.

Case 10.—Mrs. ———, Mott-street, æt. 20, primipara; inhalation of chloroform commenced whilst the corrugated scalp slightly separated the labia pudendi. The case progressed and terminated in all essential respects, similarly to the case last detailed. Respiration and circulation were slightly affected by the agent. The uterus under the first general impression ceased action, but at the end of a quarter of an hour resumed its contractions; 5 minutes only intervening between each.

REMARKS.

It may be observed of the foregoing cases,—1st, that the frequency of the pulse was diminished during *perfect* apathy;—it was small, thready, and if the inhalation was continued a few moments longer, became almost imperceptible. 2d, The respiration grew hurried, short, and interrupted; varying, however, with the degree of anæsthesia produced. If the vapor caused sleep only when attendant

circumstances were favorable to repose, the breathing was in no wise different from that of natural slumber. But a marked alteration in the function of respiration attended the state of profound insensibility. 3d. The muscular system was relaxed proportionately to the quantity of the vapor inhaled. Without being sensible to pain, the patient sometimes flexed and extended the limbs, or aided an expulsive effort with the action of the abdominal muscles. If at this period she received a few more inhalations in quick succession, her limbs lost all muscular resistance, and the body lay motionless. 4th, If the administration was carried so far that the pulse fell in frequency, the respiration short and hurried, the muscular system lax, and unconsciousness *complete*, uterine contractions were temporarily suspended. The period of their absence was from fifteen to thirty minutes. When they re-appeared—as they would do notwithstanding the most profound sopor—they were wanting in their original force. Yet, no doubt, their efforts promoted delivery equally with former throes, as with a diminution of force there occurred less resistance from the soft structures of the pelvis. However, such an overpowering impression was seldom necessary for procuring the desirable effects of chloroform,—a few cases of its exhibition in natural labor, teaching that the object in view should be rather to tranquillize an excessive susceptibility to painful impressions, than utterly to set aside the power of perception. Especially does this instruction regard the interval between the commencement of apathy and the moment the head is about to glide over the perinæum. 5th. In no case was there an unusual loss of blood; indeed, I believe I never witnessed, successively, the same number of deliveries with so trifling hemorrhage. 6th. In every instance did the uterus expel the placenta within twenty minutes after the birth of the child. 7th. The fœtal heart beat whilst in utero the same after as before the administration of the vapor. The children born were vigorous.

The chloroform has always been inhaled from a handkerchief.—This mode is objectionable on two grounds: first, it is wasteful; and secondly, the vapor that escapes sometimes inconveniently affects the attendants. But the facility it offers for introducing the agent under the various circumstances and positions of the patient more than counterbalances the saving an apparatus would ensure.

For a calm and clear restoration of the mental faculties, it was found very important after withdrawing the vapor, to allow the patient to sleep undisturbed by the least noise or motion. So desirable was it deemed that the patient should sleep until the odour of chloroform was no longer perceptible in the breath, that in one or two instances I kept up the influence of the vapor till the placenta had been expelled, the soiled clothes removed, and the bandage adjusted, leaving no cause for disquietude. If the patient be awakened before she is capable of recognizing her companions, and clearly understanding her new relations, she is likely to remain much longer confused than if she had been left unmolested.

On the whole, does the experience afforded by the foregoing cases allow us to recommend chloroform in natural labor? It certainly does not prohibit the article. It rather refers the question of its

administration to the patient's disposition, so long as our experience does not furnish evidence of an injurious effect. If she chooses to be relieved from pain by a remedy which has the power to do so as its only claim on her consideration, she may have the article administered during the protrusion of the head from the pelvis; and our previous knowledge of chloroform, under similar circumstances, will warrant its exhibition.

This anæsthetic agent will probably be found more useful in preternatural than in natural labors, if we may estimate its suitableness in certain irregular conditions by its operation in a regular delivery. Thus it may be employed to suspend uterine contraction when the occasion demands version; it may be used in cases of irregular contraction of the uterus retaining the placenta, and for arresting the recurrence of parturient convulsions. There are accidents, too, which are avoided by the use of the vapor; hemorrhage is not as likely to occur with as without it, from its property of reducing vascular activity. Rupture of the uterus will not take place sooner from its influence; and from rendering the nervous system less mobile, convulsions may be averted.

ART. V.—*An Essay on the Nature and Curability of Heterologous Tumors.* By N. S. DAVIS, M. D.

IF the deductions, stated at the close of our former article, should be sustained by further and more extended observation, they will lead directly to practical results of the highest importance. I am well aware that the bare proposal to render carcinomatous and other malignant diseases curable by ordinary medical means, will be much more likely to meet with the smile of scepticism than the serious and patient consideration of the profession. But of two things I am fully satisfied, viz., that the prevalent opinion concerning the primary local character of this class of tumors or deposites, is entirely erroneous, and that the consequent practice of relying almost exclusively on excision as a means of cure, is wholly useless. Hence, unless we are willing to abandon this unfortunate class of human sufferers to their fate, and leave them where they are, indeed, now left to a very great extent, i. e., in the hands of the very lowest and most ignorant class of quacks that afflict the world, we must, as a profession, throw aside our prepossessions, and patiently re-investigate the whole subject. And in doing this, we must not look to the composition and structure of the tumor alone, or its effects on the surrounding tissues; but we must note with equal care the previous condition of the whole digestive or assimilating apparatus, the quantity and quality of the food and drink, the quality and mode of dress, the quality of the air occasionally or habitually inhaled, the condition of all the excretions, and the tone of the patient's mental feelings. By pursuing such a course patiently, and with unbiassed scrutiny, through a large number of cases, I have no doubt but correct and reliable conclusions could be deduced concerning both the primary causes, and the particular organs through which they act,

and the disturbance of whose functions leads directly to the morbid nutrition or deposite. And if so, we should as certainly find ourselves capable of preventing and curing this as any other class of chronic diseases. But, how is such an investigation to be made? The number of cases coming fully under the observation of any one practitioner is too limited for the purpose; and in our well-regulated hospitals this class of patients are seldom received except for the mere purpose of undergoing an operation with the knife.

I know of no mode of accomplishing this desirable object fully and satisfactorily, except by the establishment of an institution devoted exclusively to the treatment of malignant or carcinomatous and scrofulous diseases. Such an institution, under good and faithful management, would undoubtedly gather in a sufficient number and variety of cases to afford the most ample field for investigation. And it would also do more to snatch this numerous and truly miserable class of human sufferers from the hands of ignorant empirics than any other movement that could be devised. Indeed, if I were sure of meeting the countenance and approbation of the profession, I should be strongly disposed to volunteer a trial of the enterprise. At present, however, we cannot go beyond the general conclusions already stated in the two preceding articles; and hence, on them must be based our ideas or principles of treatment. These may be stated as follows:

1st. To remove or avoid the primary causes of the disease in each individual case.

2d. To correct those functional derangements resulting from the action of said causes.

3d. To remove the local effects, i. e., the deposites or tumors.

Want of due attention to the first two propositions named, is doubtless the cause of much of our ill-success in the treatment of this class of diseases. Especially is this the case in regard to all the varieties of tuberculous and carcinomatous deposites. There is great proneness, both on the part of the patient and the physician, to confine their attention too exclusively to the local manifestation of disease. And even eminent medical and surgical teachers, who acknowledge the constitutional origin of the disease, still direct the attention of their students to the local deposit, representing it as the malignant focus or fountain from which radiate through the lymphatics, that specific poison which contaminates all the fluids of the system, induces the peculiar cachectic appearance, and finally destroys the patient. Hence arises the tenacious adherence, on the part of most surgeons, to the practice of extirpating all carcinomatous tumors. "This should be done," say they, "as early as possible, to remove the poisonous fountain before it has contaminated the whole system." But unless all experience, analogy and sound reasoning fail to be applicable to the investigation of these diseases, both the practice and the reasons on which it is based are as absurd as it would be to attempt to drain a lake without cutting off the streams that flow into it. I say experience, because I have already shown that so far as reliable statistical facts can be gathered, such operations, instead of removing from the system a poisonous foun-

tain, actually diminish the chances of life. And I have been informed by one of the most eminent and experienced surgeons in this country, that he has never known a patient survive an operation for the removal of a cancer three years in good health; except in cases where the disease was cutaneous merely. No one at the present day, thinks of curing scrofulous tumors by extirpation, yet it is but a comparatively few years since they were regarded almost as incurable as carcinoma now is. But it was no sooner satisfactorily ascertained that the local scrofulous deposite was the mere result of a constitutional derangement; and that derangement essentially consisting in imperfect assimilation, than successful hygienic and therapeutical means were devised for their cure. It would be of little avail, however, for us to apply our therapeutic remedies in the treatment of scrofula, so long as the patient was allowed to remain exposed to the full influence of its most active causes. And so has abundant experience demonstrated the equal inutility of treating carcinoma by extirpation or any one of the many pretended specifics, without first ascertaining and correcting those functional derangements that give rise to, or, indeed, constitute the constitutional condition on which the local deposit depends.

Hence, every system of rational treatment must commence with an attempt to fulfil the first indication named, i. e., to remove or avoid the exciting causes of the disease. But it may be said that these causes are so obscure as to be little understood; and their avoidance or removal is therefore a mere matter of guess-work in the treatment. I am satisfied that this idea is owing, in a very great measure at least, to a wrong impression in regard to the nature of these causes. With the mind strongly impressed with the obstinate and malignant nature of the local disease, the surgeon has ever been prone to overlook those sources of disturbed assimilation and nutrition to be found in the ordinary circumstances and habits of patients; while it is here, and here alone, that he has reason to find success in his search. I have now under my own observation, five cases of carcinoma in the female breast. In three of them, mental depression and anxiety arising from family afflictions, had exerted a strong influence for many months previous to the first appearance of the local disease; in another it seemed to commence as the sequelæ of a severe attack of typhus fever; and all of them were addicted to the very liberal use of tea and coffee. Indeed, I have never seen a case of true carcinoma, in which a careful and minute examination of the patient, did not indicate the existence and operation of causes abundantly sufficient to induce disorder in the functions of assimilation or excretion, or both. And among these causes, so far as my own experience goes, mental depression and anxiety occupy a prominent place. Hence, the first object, in reference to the treatment of these diseases, is, by a minute examination of each individual case, to ascertain and remove as far as possible all remote and exciting causes. The second is, to correct those functional disorders which have resulted from the action of the causes just alluded to. In very many cases this may be accomplished by simply fulfilling the first indication, viz.: a removal of the causes. But,

on the other hand, it should constantly be borne in mind that disordered functions may continue an indefinite period after the primary exciting causes have ceased to act. In regard to the organ or organs, whose function is most frequently disturbed as the incipient step towards the formation of tuberculous and carcinomatous deposits, our medical literature does not afford sufficient data to warrant the expression of a positive opinion. Dr. McIlwaine of London, refers the primary derangement in a large majority of cases to the liver. And this opinion receives some confirmation from the fact, that this organ is by far the most frequent seat of internal cancerous deposit; and its disordered action is very plainly manifest in many cases, in which the local disease is in the breast or some external part. My own experience would induce me to place the primary link in the chain of morbid actions, most frequently in the organic system of nerves, next in the liver, and third in the uterus. The influence of the nerves over the capillaries and the process of nutrition, has been too clearly demonstrated by the experiments of Miller, Philips and others, to admit of doubt. And the well-known influence of sudden and strong mental emotions, in changing the frequency and force of the pulse, the quantity and quality of many of the secretions, and retarding or suspending digestion, should have induced the profession, long since, to give more attention to the influence of the mind as a cause of organic disease. Long-continued mental depression, especially if accompanied with anxiety, greatly diminishes the nervous energy, and thereby retards or deranges both the assimilative and excretory functions. Hence the blood is imperfectly elaborated, and that condition most favorable to the formation of organic diseases is induced. The following case will serve as an illustration of this form of the disease. Mrs. P., aged 50 years, came to me some months since with an open or ulcerated cancer in the left breast. She had ever been an active industrious woman, and had never suffered any severe attack of disease; although she had been for many years in the habit of taking a full dose of calomel occasionally for what she termed a bilious state of the stomach. This she had often done without the advice of a physician, and, judging from her own account, she had much impaired the functions of the stomach and nervous system thereby. Her menstrual functions had ceased entirely six or seven years previous to her visiting me. Her diet had been plain and judicious, but she had long indulged freely in the daily use of tea and coffee, and her bowels had usually been slightly costive. During the last two years she has been almost constantly laboring under a state of mental depression and anxiety, sufficient to produce wakefulness and much nervous irritability; and about eight or nine months since a small hard tumor was discovered in her breast, giving rise to occasional sharp and severe pains. This continued to enlarge for three or four months, and then became converted into an open cancerous ulcer, which is now about two inches in diameter with a hard or scirrhus base. Some of the glands above the clavicle, and also those in the axilla, are enlarged; and one of the latter is so situated as to obstruct in some degree the return of the blood through the veins, thereby

causing considerable swelling and some pain in the arm. The countenance is care-worn and pale, the tongue clean, the pulse nearly natural, and the appetite good. Her skin is dry and husky, and she is still wakeful and restless. If we remember those well authenticated cases, in which a single fit of anger on the part of the mother, so changed the composition of the milk in her breasts as to prove poisonous to her child, and many other facts equally striking, we shall no longer regard it as a mere stretch of the imagination, to refer the origin of many organic diseases to long-continued mental depression and disturbance. What, then, are the plain indications of treatment in these cases? I answer; first, to counteract or remove as far as possible the mental depression by moral and social influences; second, to allay nervous irritability and promote a healthy state of the secretions; and third, to adopt such dietetic regulations as will best promote the healthy and perfect performance of the functions of digestion and nutrition. For the accomplishment of the first of these objects no specific rules can be given. Everything must depend on the enlightened judgment and discretion of the practitioner, and the particular circumstances of the case. The second indication is generally most effectually fulfilled by the use of anodynes and alteratives. The former must be given in such doses and repeated at such intervals as to subdue irritability and procure sleep at night. This latter object is of great importance in the treatment of all chronic diseases; for the absence of sleep alone exerts a strongly-disturbing influence over all the organic actions. The particular articles best adapted to the accomplishment of this object, are those that allay pain and irritability without constipating the bowels or lessening the secretions; such as the conium maculatum, the hyoscyamus, the stramonium, &c. Indeed, it is the highly beneficial influence exerted by these articles, on such cases of carcinoma as have their origin in mental depression and nervous irritability, that gave to the *conium* much reputation in the treatment of cancers among physicians of a former age. And it was their indiscriminate use in cases arising from entirely different causes, that has led to the idea of their inefficiency by more modern practitioners. The truth is, the profession has not yet got rid of the idea that carcinoma is a specific disease, arising from certain specific though mysterious causes; and that it must be cured, if cured at all, by specific remedies. Hence, if a remedy is reported to have acted beneficially in one case, it is straightway applied in a score of others without reference to their exciting causes or any other circumstances, and if not found equally beneficial is at once condemned as useless. Whereas, it is undoubtedly true, that carcinoma arises under as varying circumstances, and from as diverse exciting causes as any other disease. And if we would ever arrive at a correct and successful mode of treatment, we must study carefully these varying circumstances and diverse causes, and adapt our remedies to them in each individual case. If we do this, we shall find cases in which the use of anodynes alone will be of great service; others, in which there is coupled with nervous irritability marked derangement of the liver and digestive functions, where the union of anodynes and alte-

ratives will be productive of the happiest effects; and still others, in which alteratives alone, or in combination with tonics, will be strongly indicated. I might detail cases illustrating these different varieties and the results of their treatment; But as these cases are all of recent date I prefer for obvious reasons, to withhold them for the present. In addition to the judicious use of therapeutic agents, proper dietetic and hygienic regulations are of the first importance. Pure air, cleanliness, and the avoidance of all articles of food or drink which tend in any degree to disturb any part of the digestive apparatus, should be rigidly enjoined.

Tea and coffee, if freely and habitually indulged, should be prohibited. If the patient be poor, and accustomed to coarse indigestible and oily food, this should be improved; or, on the other hand, if pampered with luxuries, these should be restricted. In a word, the diet should be good bread, milk, lean meat, rice, potatoes, ripe fruit, and cold water, all of which favor healthy digestion and the formation of pure and healthy blood. Such are the principles that should govern us in the treatment of these truly-formidable diseases; and if they are skilfully and patiently applied, I am confident that the result will not be wholly unsuccessful. In regard to the extirpation of cancers with the knife or with caustic, I should follow the rule, never to operate so long as the tumor was increasing. And for the simple reason, that the increase of the tumor shows conclusively the continued operation of its original causes, and while these continue, cutting away the tumor is simply removing the effect while the cancers remains to renew the deposite in the same place or elsewhere. But if, by previous constitutional treatment, the progress of the disease had been arrested and the various functions restored to a healthy standard, and yet, the bare presence of the local deposite during a period necessary for the absorption, kept the patient's mind depressed and anxious, it might be both desirable and proper to remove it with the knife.

ART. VI.—*Summary of Observations on Syphilis in Infants.* By N. H. CHESEBROUGH, M. D., Member of the New-York Academy of Medicine, Member of the New-York Pathological Society, etc. etc. [Read before the New-York Obstetric Society, January 29th, 1848.]

THERE are but few among that vast category of diseases which afflict humanity of greater interest to medical men, than the one I have chosen as the subject of this paper. Its prevalence is as widespread as the depravity and licentiousness of our race, whence the entailment of all its evils and sufferings flows, and its sad ravages amid the ranks of helpless infancy, with its attendant and consequent inflictions on the health and happiness of those from whom it derives its daily nourishment, furnish the most powerful and convincing testimony of the criminality of sexual impurity, that it were possible to adduce. But so long as the dissolute and unrestrained passions of men continue to exercise their pernicious sway

over their judgment and conduct, or their free indulgence find scope and sufferance in the depraved morals of society or the absence of all penal enactments, will their dire consequences scatter the seeds of decay and dissolution among an infected offspring, poison the life's blood of mothers and nurses, and break up the peace, harmony and kind feeling of entire families. We shall in vain search for a more palpable illustration of the accomplishment of the threatened penalty of Jehovah for man's violation of his commands, "visiting the iniquity of the fathers upon the children," than is presented in the propagation of the disease under consideration. No curse more dire and fatal ever fell upon frail humanity, as the sure penalty of wrong-doing, that follows in the train of licentiousness: the saddest features of this dread curse being exhibited, in the premature blight, foul disease, or early death of a luckless progeny.

But I must moralize no farther. The thoughts just sketched, seemed pertinent to the introduction of my subject, and having thus taken a momentary glance at its hideous portraiture, you will perhaps be the more deeply interested in listening to the following summary of the opinions of writers on this disease, considered in its HISTORY, SYMPTOMATOLOGY, CAUSES and TREATMENT.

HISTORY.

Syphilis, as it is manifested in early infancy, is a diseases communicated from one or both the parents, or from the nurse. If the disease have been hereditarily transmitted, it proves clearly, that either one or both parents, have been at some time infected with the venereal virus. They may have *contracted* the disease several years previous to marriage, been treated for it, and imagined themselves perfectly cured, and their systems freed from all traces of the syphilitic poison. Yet their hopes are blasted and their sanguine expectations are mocked, as they witness the evidences of the poison still lurking in their own systems, in the untimely death or diseased frames of their offspring.

It is not essential, however, to the propagation of syphilis, that the parties shall have received the infection prior to conception; pregnancy having been known to have advanced to at least one third of its ordinary term, before the disease has been contracted and communicated to the mother, and yet the fœtus has become infected, as evinced at or shortly after birth. Frequently as the result of syphilis existing in a latent form in the parents, *abortions* repeatedly succeed each other, the embryo being often expelled in a state of putrescence. It is indeed denied by Ricord and Acton, that abortion under such circumstances, has any connexion with syphilitic parentage; but we have the testimony of so many equally distinguished and credible practitioners to the contrary, who strengthen their position by so strong an array of cases, illustrative of its undoubted truth, that we are forced to the conclusion, that the syphilitic diathesis *is* a cause of abortion, which can be only, but at the same time fully remedied by a course of treatment, which will eradicate from the diseased parents the remnants of previous infection.

The pages of the late medical journals teem with reports of cases

in proof of the occurrence of abortion, and of the death of the fœtus in utero, from the existence of syphilis in its secondary forms, and in Mr. Ancell's Report on Syphilis, in Vol. 2, No. 2, of Ranking's Abstract, he observes, "It is again a matter of surprise with us, that any doubts should exist on this point; surely no man of any extent of practice, has failed to meet with instances. Syphilis has been recognised as a cause of abortion by most practitioners of midwifery and in our own practice, several unequivocal examples have occurred. The following case, continues Mr. A., will illustrate this point in reference to condylomata. A young gentleman had symptoms which were pronounced to be pseudo-syphilis, by two eminent surgeons; these disappeared under treatment, and his marriage with a young lady of the highest respectability was sanctioned by his surgical advisers. A few months after his marriage, he presented himself, with round copper-colored tubercles on the dorsum of the penis, for which he had been taking biniodide of mercury, from a prescription he had formerly received. His wife was at this time affected over the whole of the labia, the perineum, and around the anus, with a crop of mucous tubercles, and a fœtid discharge. The local symptoms were quickly relieved, she was pregnant and aborted at about six weeks. About this time, a copper-colored exanthematous eruption appeared over the arms, chest, and other parts of the body; an anti-syphilitic course was resorted to, the eruption disappeared, and the husband protested against continuing the remedies as being unnecessary. The wife became pregnant again, and aborted at about 4 or 5 weeks. Believing the abortions depended upon debility, she then went out of town for the benefit of her health, became pregnant again, and at the expiration of six months, gave birth to a dead child, with a desquamated cuticle. The chimera of pseudo-syphilis was now happily dismissed from the husband's mind, both himself and wife submitted to an anti-syphilitic treatment, of at least three months' duration, connection was avoided the whole of that period, the lady has since given birth to a healthy child at the full period, and both husband and wife have quite recovered their health."

Mr. Lloyd and Mr. Wade have stated "that cases of abortion, and of the death of the fœtus shortly after birth, were more common when the disease affected the father, than when the mother was the subject of the complaint. Why it was so, it was difficult to explain."*

I have mentioned that infantile syphilis may be communicated from the nurse. How this may occur, will be explained, when we come to examine the etiology of the disease. That syphilis is decidedly contagious from nurse to child, has been proved by many well-authenticated cases, and it has been on the other hand, as clearly shown, that the nurse may be infected by a diseased suckling. The minds of some medical men are, however, still undecided with reference to this latter point, while Ricord and Acton stoutly deny the contagiousness of syphilis, from a diseased child to a healthy nurse. Having investigated this subject with the utmost impartiality, and weighed the arguments and facts advanced on both sides, I am fully decided in the opinion, that syphilis is very often transmitted from

* Ranking, Vol. II. No. 2, p. 137.

child to nurse. Did our limits permit, I will venture to affirm, that I could produce such a mass of evidence in proof of such transmission as would remove every doubt, which you might have entertained on this point. I can only state a few leading facts in this connexion, and leave you to examine the entire subject at your leisure. Dr. Egan, in the course of some observations on syphilis as contracted from nursed children, expresses his views in the following strong language. "It is a fact worthy of notice, and to which out of many cases, I have not met with a single exception, that a nurse may continue to suckle a diseased infant with perfect safety to herself, so long as no abrasion of the cuticle, or ulceration in or about the nipple occurs: but when such take place, she can no longer continue to do so with impunity."

Swediaur also remarks, "In all cases of the kind that have come to my knowledge, the nipples of the nurse were infected by syphilitic ulcers in the mouth of the child."*

Indeed, Dr. Colles goes farther than this, believing "that the disease may be communicated from an infected child, by mere contact." Dr. Calso makes the curious remark, that he has "never seen or heard of a syphilitic infant, although its mouth were ulcerated, producing ulcerations on the breast, when suckled by its own mother; whereas very few instances have occurred where a syphilitic infant did not affect a strange hired wet-nurse, previously in good health."†

The authorities just quoted, are strongly supported in their views by numerous examples strikingly illustrative of their correctness, which occurred in their own practice and that of others—and among them, one case is related by Dr. Egan, where the woman took charge of her daughter's child to dry nurse. "At this period there were sores on the verge of the anus of the infant, the mucous membrane of the lips was inclined to peel off, and the tongue was the seat of small white blisters. Shortly after birth, an eruption presented on its body, which had been alternately declining and re-appearing, up to the date of her attendance on it. She likewise stated, that she was constantly in the habit of kissing the child during the time its mouth was affected, and more than once applied her lips to to the sores on the arms." This woman shortly afterwards became affected with secondary syphilis, which it was evident was communicated by mere contact, "without any apparent breach of surface."‡

According to M. Rizzi of Milan, if a woman contract specific ulcerations on the breast by suckling an infected infant, mucous tubercles very frequently develop themselves on the vulva, and about the anus; but this, it is stated, is not all; the syphilis, although secondary, is transmissible by contact, so that a perfectly innocent woman may communicate the disease to her husband; and it behooves the medical attendant to be well apprised of this fact, as upon his knowledge of it, not only the health, but the peace of mind, and the honor

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* Braithwaite, No. 13, p. 286. † Ranking, Vol. II., No. 2, p 236.
‡ Braithwaite, No. 14, p. 225.

of individuals must rest. Of one hundred individuals with chancres on the breast from impure lactation, or on the mouth or throat, derived from contact with an infected infant, thirty-four had tubercles of the vulva, nineteen syphilitic angina, two iritis, fourteen tubercles of the vulva and angina simultaneously, five tubercles of the vulva, and others disseminated over other parts of the body, of divers complicated symptoms, six tubercles of the vulva, angina, tubercles on the skin, and iritis, and nineteen no secondary symptoms."*

SYMPTOMS OF INFANTILE SYPHILIS.

Not unfrequently this disease exhibits itself in the child at birth, by the most unequivocal indications, so that a practitioner, at all familiar with its characters, cannot fail to recognise it. The child may, however, be born apparently healthy, in every particular, and the disease remain undeveloped for several weeks or months. M. Rizzi has furnished the following statistics, relating to the period of its development. "In fifty-three infants, the disease manifested itself one month after birth in thirty-three; at the expiration of two months in eleven; of three months in four; of four months in four; and in one only after the expiration of eight months."†

"A universal desquamation of the cuticle, a hoarse squeaking voice, copper-colored blotches, a scaly eruption upon the chin, an unnatural redness of the anus, are the common symptoms which Mr. Hey sets down, as proofs of syphilis, in very young infants."‡

According to Mr. Samuel Cooper, "The symptoms of syphilis in the new born child, or soon after birth, are mostly a universal desquamation of the cuticle, which peels off very extensively and freely —copper-colored blotches and scaly eruptions, over a considerable part of the body—various rednesses and superficial ulcerations about the anus and nates, and sometimes about the parts of generation—also ulcerations and fissures at the corners of the mouth, and in the mucous membrane of the fauces, and sometimes on the eyelids. Besides these symptoms, there is frequently an obstruction of the nostrils with a thick yellow secretion, so that the child cannot breathe freely, and the respiration is attended with a snuffling noise. There is also an extraordinary degree of emaciation, the infant continuing to lose flesh daily, and if not speedily relieved, it soon perishes."§

In Evanson and Maunsell's excellent work, on the Diseases of Children, the symptoms and course of the disease, are very concisely and clearly detailed as follows: "The first distinct symptom usually is the occurrence of a peculiar mode of breathing through the nose, known by nurses as the *snuffles*. At the commencement, this is attributed to cold, and seldom attended to, until the eruption appears, —in the interim, however, the child's health is much affected, and without any apparent reason. It has no bowel complaint, and is not undergoing dentition, but yet wastes away, and is feverish, fretful and pallid. In about a fortnight, an eruption comes out rather suddenly, at first upon the lower extremities and buttocks, and sub-

* Ranking, No. 5, p. 219.
† Ranking, No. 5, p. 219.
‡ Cooper's Surg. Dict., Part 2, p. 438.
§ Cooper's Surgery, vol. I., p. 540.

sequently upon the face and body. The practitioner seldom sees the child until this eruption has been for some time in existence, and has changed from its original characters. It appears, however, first in the form of copper-colored blotches, about the size of a split pea, and slightly raised above the level of the skin; these are, in a degree, moist upon the surface, and in situations exposed to the air, they soon become scaly, and subsequently are converted into dark-yellowish scabs. Where portions of the skin are naturally in contact, as between the buttocks, in the wrinkles of the neck, &c., scabs are not formed,—but raised condylomatous sores. As the disease advances, the skin, in the interspaces between the scabs, becomes throughout of a copper color; and perpendicular fissures are formed in the lips, giving the mouth a very peculiar and characteristic appearance, which cannot be verbally described; but to those familiar with the disease, is in itself diagnostic of its real nature. The voice at this time becomes feeble and stridulous,—the inside of the mouth often covered with aphthæ—extreme emaciation attends—and if medical aid be not afforded, the child is reduced to a state of excessive debility, and dies, covered with disgusting scabs and ulcerations."

Dr. Golding Bird, remarks, "There is seldom any real difficulty in the diagnosis of these cases, when once the practitioner has learned to recognise them. The characteristic *snuffling*, will often enable him to recognise the existence of disease, even before he has confirmed his opinion, by visual examination. The puckered mouth, the position of the very characteristic eruption round the lips and anus, in addition to the peculiar varnished and fissued appearance of the parts from which the scales have faded, will seldom if ever fail to convert a suspicion of the true nature of the disease into positive certainty. Condylomatous excrescences from the margin of the anus, have never in any of the cases accompanied the earliest development of the syphilitic affection, but were always secondary, being observed in those children only, whose primary affection was neglected, or incompletely eradicated. When the eruption occurring on the nates and face in the first few weeks of life, had been promptly treated, no condylomata appeared on the anal margin, at least so long as the children were kept in sight. But on the contrary, when the eruptions were neglected, condylomata were the almost certain results."*

According to Dr. Egan, "The symptoms commonly present at birth are, desquamation of the cuticle, a senile expression of countenance, and rarely a few eruptive blotches; with these symptoms, the history of the case is necessary to form a diagnosis. But when a child is born apparently healthy, the diagnosis is clear, on the supervention of a peculiar train of symptoms. The characteristic *snuffling*, the puckered mouth, the position of the eruption round the lips and anus, in addition to the peculiar varnished and fissured appearance of the parts from which the scales have faded, will seldom fail to convert a suspicion into positive certainty." "These, how-

* Braithwaite, No. 11, p. 175.

ever, are not the only symptoms of syphilis with which new-born infants are frequently affected. Professor Dubois gives a case, in which an infant at birth had a pustular eruption in full suppuration; —the tibia of the left leg was necrozed, and there was abscess in the thyroid body."*

I have thus presented you with the ordinary symptoms of infantile syphilis, whether developed at birth, or at the expiration of a brief period subsequently;—and having selected the best descriptive definitions of its characters and progress, as furnished by the above writers on the disease, I preferred to present them in their own clear and expressive language, to any attempt at an original arrangement of them on my part.

It was the opinion of the late Dr. Hunter, and others,—and the French physicians engaged in hospital practice incline to the same belief,—that intractable purulent ophthalmia in infants, is very commonly due to a venereal taint. (See Underwood on Children, p. 316.) And Dr. Jacob informs us that syphilitic inflammation of the eye in infants, "is sometimes, although rarely, met with as in adults, unaccompanied by any other form of the disease." Dr. J. then proceeds with a description of this form of inflammation, and afterwards observes that "he sees these cases oftener after the mischief has been done and the organ destroyed than during the commencement of the attack; yet, even at this period, the emaciation, or defect of nutrition, arrested growth, and pallid dingy skin, proclaim the nature of the malady; and sometimes other forms of it may still be detected."†

Rayer observes, that "Purulent syphilitic ophthalmia is often associated with venereal eruptions, among new-born infants."‡

Cazenave and Schedel, in their work on Diseases of the Skin, offer the following observations on the subject of Ecthyma Syphiliticum, "This is the most common form of the syphilitic pustular eruption, and the one which usually occurs in new-born children. Here the pustules are broad, superficial, flat, of an oval shape, and in great numbers; the scabs are dark and thick, and conceal small ulcers underneath. The countenance of the patient, presents at the same time, a peculiar appearance, which it is difficult to describe; the skin is of an earthy hue—the child is emaciated, the face is drawn in, and marked like that of an old person, by numerous wrinkles, while the whole body exhales a most disagreeable odor."

CAUSES.

Syphilis in the infant, is ascribable to previous infection, communicated from the mother or nurse. When hereditarily transmitted, the child becomes infected, in one of the two following ways. 1st. By contamination during fœtal existence; or, 2d. In the passage of the child during delivery, the mother being at the time affected with the primary symptoms. It has indeed been questioned by some, whether the disease is ever actually communicated in this lat-

* Ranking, Vol. II., No. 2, p. 237. † Ibid., p. 246.
‡ Rayer on the Skin, p. 304.

ter method—but as I find it asserted that syphilis is sometimes propagated in this manner, and as such an event seems to me at least possible, I have presumed to introduce it here, among the causes of this disease. Waiving, however, any attempt of mine to defend and illustrate this position, I must beg you to be patient with me, while I endeavor to prove clearly to you the fact of the hereditary propagation of syphilis, and show *how* the fœtus becomes contaminated during uterine life.

Congenital syphilis occurs when either the father or mother have been known to be suffering at the time of conception, either the primary or secondary symptoms of syphilis;—it has also followed, when one of the parties, previously in perfect health, has contracted the disease, and by sexual intercourse, both parents have become infected, the mother having advanced to the third month of pregnancy. It has resulted also, not unfrequently, in instances where one or both parents have contracted syphilis several months or years previous to marriage, the disease was at the time supposed to be cured, and was never afterwards re-contracted. Having now stated these leading, and well-founded points in reference to the subject at issue, let us examine the reasonings and facts which support these conclusions, and determine their soundness and accuracy.

Rayer observes, that "A mother laboring under syphilis, may communicate it to her child in utero."*

Says Dr. Francis, in his revised edition of Denman's Midwifery, "I have had under my own care, six cases of the venereal disease, communicated to the fœtus in utero—two of these cases occurred where the genital system appeared in a perfectly sound state—in another there were ulcers of the labia, and constitutional disease."

At a meeting of the Medico-Chirurgical Society of London, Dr. Snow related the following case: "Another patient had three very healthy children, which were still living; and after the birth of these, the husband contracted syphilis. He and his wife had the disease in the secondary form, and the treatment for this was scarcely concluded, when the wife became pregnant again. The child was still-born at the full period, and there was effusion of blood into the serous cavities, particularly in the peritoneum." "Mr. Lloyd and Mr. Wade stated that cases of abortion, and of the death of the fœtus shortly after birth, were more common when the disease affected the father, than when the mother was the subject of the complaint. Why it was so, it was difficult to explain."†

I have stated that the child may become infected in instances where the mother has never been exposed to the disease, until a period subsequent to conception. The following case is furnished in illustration, by Dr. Porter: "In July, 1840, a married gentleman, the father of several healthy children, whilst on business in London, unfortunately had intercourse with a servant girl, at one of the hotels, and contracted a sore on the penis, which was pronounced not to be venereal, and healed by topical applications. He returned

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* Rayer, p. 301. † Ranking, Vol. II., No. 2, p. 237.

in August, and in the latter end of September, consulted me for sore throat. It was of that description, which I am accustomed to describe as resembling the mark of a snail-track on the part, and I unhesitatingly pronounced it to be syphilitic. He appeared greatly distressed, acknowledged his transgression, but still seemed to lean with some hope on the opinion of the gentleman who had first seen and treated the case, and refused to take mercury, which indeed, I was unwilling to press, as I understood his wife was far gone in pregnancy. In January, 1841, he came to me in great fright, requesting me to see his wife, whom he feared he had disordered. I found her with several spots of button-scurvy, and gave my opinion to the husband, that they had a syphilitic origin. Still he was unwilling to believe in a calamity which he dreaded beyond anything in the world, and had a surgeon of eminence in consultation, who decided at once that it was button-scurvy and not venereal, and appeared to be greatly strengthened in the opinion by the fact of the lady never having had a previous symptom of any description. In the course of a few days, however, the question was settled by the birth of a child, who died within a week, of unmistakable confirmed lues. *Now this infant had been begotten in April, three months before the father's first contraction of the ailment*, and must have therefore been poisoned by the circulation of the mother at a considerable period subsequently. The question is, how did that circulation become contaminated, seeing that the father had never a sore, capable of furnishing a drop of matter, and the mother never a symptom of any description, until the doubtful one of button-scurvy, which only appeared a few days before her confinement?" Dr. Porter adds, "I might produce many, very many cases of this description, but none so convincing, none so trustworthy as this. The gentleman was sensible and strong-minded; he confessed all to his wife, and both parties were subjected to a course of mercury, and recovered. The case is altogether, in my mind, above suspicion; and it would only detract from its effectiveness, if I related others, less authoritative."*

It is the opinion of Dr Campbell, of Edinburgh, "that syphilis, imperfectly eradicated from the system of the father, may so infect the offspring while in utero, as to cause its death; or, if born alive, it may have evidences of disease at or some time after birth." Dr. C. then proceeds to substantiate his views by the narration of well-marked cases in point.†

"Dr. Colles states it to be a well authenticated fact, that a man apparently cured of syphilis, and marrying a female of unblemished character, will get a child which shall be born with the venereal disease, although neither of the parents may exhibit a single trace of the disease themselves during the whole period of utero-gestation; and further, that two or three children may be born to these parents in due succession, and still the father and mother remain to all appearance untainted."‡

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* Ranking, No. 5, p. 90.
† Braithwaite, No. 10, p. 148.
‡ Braithwaite, No. 15, p. 251.

Dr. Rusker states that he has met "with two examples in children, of hereditary lues, where the formerly syphilitic father, who for a long time had had no symptoms of the disease, produced two children with evident symptoms of the inherited disease, notwithstanding the mother was strong and perfectly healthy, and had never perceived any trace of the disease, either before, during, or after pregnancy."*

But it is needless to cite farther authority in proof of the hereditary transmission of syphilis; the whole matter is settled in the minds of nearly every medical observer. And though Ricord and Acton may not quite agree with us in every particular, we are none the less satisfied of the undoubted correctness of the positions which we have undertaken to assert and illustrate.

But how do these same authorities attempt to explain the manner in which the fœtus is contaminated with the virus of syphilis, in cases where the father has alone suffered from the disease, the mother having never exhibited the slightest trace of syphilis in either of its forms?

Dr. Porter, from whom I have already quoted, says, that cases of hereditary syphilis, which have occurred in his own experience, have "led him to the conclusion. *that the semen of a diseased man deposited in the vagina of a healthy woman, by being absorbed may contaminate that woman, without the necessary occurrence of a chancre, or any open sore, secreting matter, on either the man or woman.*"†

To the same purport, remarks Dr. Rusker, with respect to similar examples of the disease in his own practice,—"These cases prove that the '*seed*' of a father affected with lues, can communicate the disease to the child, without the mother being affected."‡

Another writer very *justly* expresses himself in still more explicit language with reference to this subject.—"It cannot be contrary to our established principles of physiology to believe that a male parent, who has had syphilis at some former period, and whose constitution, although no primary symptoms any longer exist, is not cleared of the effects of the poison, may communicate to the female parent a syphilitic taint, that is, a morbid condition of constitution, similar to that under which he himself labors; which communication is effected by the absorption of the seminal fluid, in which the morbific power exists, by the mother's system, and the subsequent corruption of her own constitution, without of necessity any primary or secondary symptoms having been induced in her."§

This closes our investigations respecting the communication of syphilis to the fœtus in utero; and we will now turn our attention for a moment to the consideration of the asserted origin of this disease in the infant, from an infected nurse.

It has been maintained by some, that syphilis is communicable to the infant by the milk. We are told by Mr. Ancell, that "most writers, including Swediaur, denied that syphilis is communicated

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* Braithwaite, No. 12, p. 217.
† Ranking, No. 5, p. 90.
‡ Braithwaite, No. 12, p. 217.
§ Ibid. No. 10, p. 151.

to the child by the nurse's milk. But Mr. Lane and Mr. Parker enumerate this as one of the modes of contamination; even M. Ricord has admitted it; and the case above quoted from Mr. Price, are confirmatory of this view. For obvious physiological reasons, the occurrence must however be very rare."* The case referred to, as related by Mr. Price, is a strong and decisive one, and furnishes ample proof on this point; but we cannot stay to copy it, as we have already *extracted* so extensively.

Dyckman, in his work on the pathology of the human fluids, "contends that an infected nurse, by lactation, may communicate lues venerea."†

Rayer observes, "It is generally thought now, that the nurse laboring under a syphilitic affection of the genital organs, does not transmit the disease by giving suck, if there be no specific disease of the nipples; others, however, he adds, are of a different opinion."‡

That infants contract syphilis from infected nurses whose nipples are affected with syphilitic ulceration, is certainly true, and has been verified in too many instances to admit of cavil. Says Ricord, "we may be certain that the nurse has infected the child, if she has ulcers in the fauces, pustules on the body, or exostoses, and the child, simply ulcerations of the mouth, nose or anus."§

Rayer remarks, that "the child may be infected after birth, by a nurse who has at the time syphilitic ulceration of the nipples, or by its mother under the same circumstances, if the disease of the nipples have been derived from a strange child, but we are not told, curiously enough, that no instance is known of a child, diseased in the manner just specified, infecting its own mother, although it will readily transmit the syphilitic disorder to a strange nurse."‖

Dr. Maunsell says, "Transmission by the nipple of the nurse, we have frequently observed, and have known a whole family to be infected in this way, the nurse having first received the disease from the mouth of a syphilitic nursling."¶

Swediaur remarks, "In all cases of the kind which have come to my knowledge, either the nipples of the nurse were infected by syphilitic ulcers in the mouth of the child, or reciprocally, the nipples of the nurse being affected with ulcers, occasioned ulcers of the same kind in the mouth, nose and lips of the child, and thus communicated to it a general infection."**

TREATMENT.

With respect to the treatment of infantile syphilis, the entire medical profession are united in the opinion that the employment of mercury in some form is essential for its cure; but while most practitioners prefer administering it directly to the child, there are some who insist on its use solely to the mother or nurse.

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* Ranking, Vol. II., No. 2, p. 237.
‡ Rayer, p. 289.
‖ Rayer, p. 301.
** Braithwaite, No. 13, p. 284.
† Cooper's Surg. Dict., Part 2d., p. 462.
§ Ricord, p. 51.
¶ Evanson and Maunsell, p. 351.

This latter method is recommended by Rayer, who says, "When a mother suckles her child, and both are affected with the venereal disease, it is sufficient to subject the mother to antisyphilitic treatment, the curative effects of this being transmitted by the milk of the mother to the child, and rendering it unnecessary that the child should be treated directly. This well-demonstrated fact," he continues, "has induced several practitioners to treat children who are weaned or suckled by artificial means, by feeding them with the milk of a goat or an ass which has been subjected to mercurial inunction."*

Says Mr. Castle, in his Manual of Surgery, "In these cases, you give the mother a quantity of mercury, the influence of which is communicated to the child through the medium of the milk, and it becomes cured of the syphilitic disease."†

Mr. Gibert, in his practical treatise on diseases of the skin, offers the following suggestions on the management of syphilis in the newborn infant. "If the child be at the breast, the nurse is made at the same time to take corrosive sublimate internally, as in the subjoined pills, ℞—Ext. aconiti, grs. xij., Pulv. opii, grs. ij, Bichl. hydrargyri, grs. ij. M. and divide into eight pills, one to be taken each morning." The infant is also subjected to the following local application, "Opiate cerate, ℥j., Ammoniacal oxychloride of mercury, 3j., to make an ointment. Care is taken at the same time to prescribe emollient baths, and to see that the infant is properly cleansed."‡

There are, unquestionably, certain cases which require that one or both parents, or the nurse, should be brought under the full and continued action of mercury; as, for instance, when both parents have become infected, or the female alone has had the disease, or in case the child is suckling an infected nurse. But unless the mother, in case she is suckling the child, or the nurse, is laboring under actual syphilitic symptoms, she should not undergo a mercurial course, at least "until the child is weaned, as by affecting her general health, it would be likely to deteriorate her qualities as a nurse."

There are two methods in which mercury is employed directly to the infant, viz., internally and by inunction.

The following are the remarks of Sir Benj. Brodie, on the treatment of syphilis in infants. He says, "I have tried various methods of treating these cases. I have given the gray powder internally to the child, or some kind of mercury to the nurse. But the mercury given to the infant gripes and purges severely, that given to the nurse cannot be depended upon, and at all events is an unjustifiable practice. The mode in which I have treated these cases for some time past, is this: I have a flannel roller provided, at one end of which I spread some mercurial ointment, say a drachm or more, and I apply the roller thus prepared not very tightly round the knee, repeating the application daily. The motion of the child produces the necessary friction, and the cuticle being thin, the mercury easily enters the system. This causes neither griping nor purging, it does

* Rayer, p. 313.
† Ranking, Vol. I. No. 1, p. 83.
‡ Ibid. p. 298.

not even cause soreness of the gums, but it cures the disease. Very few children ultimately recover, in whom the mercury is given internally, but I have not seen a single case in which this other method of treatment has failed."*

At a meeting of the Medico-Chirurgical Society, Dr. Snow stated the following case: "One patient, whose husband had suffered from syphilis before marriage, had had five children born about the end of the eighth month. Of these, only the last was living and it had been treated as soon as it was born with mercurial ointment to the knee, in the way recommended by Sir B. Brodie."†

In the treatment of the purulent ophthalmia of infants Underwood observes, "that whenever a venereal taint actually exists, it is more safely treated by unction than in any other way, and infants would probably be cured much oftener than they are, if recurrence were had to it in better time than it commonly is."‡

Though the superior efficacy of the treatment by mercurial inunction is asserted and sanctioned by such high authorities, and by others no less eminent in the profession, we are nevertheless disinclined to adopt such a course, in preference to the more general method of employing mercury, *internally*—still as we cannot speak from actual experience, with reference to the comparative merits of these two modes of treatment, it is sufficient for our present purpose to sketch their relative efficiency and success, without any farther attempt on our part, to bias your judgment in favor of either of them.

Dr. Rusker states: "Regarding the treatment, I have attempted to cure the disease of the *suckling*, by giving mercury to the mother, so as to affect the milk, but without success. The cure was effected however, by giving calomel to the children for some time."§

Mr. Samuel Cooper says: "We find that the disease readily yields to calomel, in half-grain doses, or to five grains of the hydrargyrum cum creta. The latter, as the milder preparation, is, perhaps, the better medicine of the two; it hardly ever fails"‖

Dr. Strange has detailed a well-marked case of the disease, which he treated as follows: "The child took hydrarg. cum creta for about two months, with an interval, and ultimately recovered, and is now well. To the mother, about 18 grains of blue mass were given as an alterative."¶

Another case is also reported by Dr. Egan, in which the child took two grains of the hydrarg. cum creta three times in the 24 hours, and in one month appeared to be restored to perfect health.**

"In the treatment of congenital syphilis, marked by copper colored blotches over various parts of the body, Dr. Golding Bird found that two grains of hydrarg. cum creta, continued for a fortnight or so, by which time the eruption has usually faded very much, and then the administration of Iodid. potassii, gr. j. in ʒij. Syr. sarzæ, ter

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* Ranking, Vol. II. No. 2, p. 167.
† Ibid. Vol. II. No. 2, p. 237.
‡ Underwood on Children, p. 316.
§ Braithwaite, No. 12, p. 217.
‖ Cooper's Surgery, p. 540.
¶ Braithwaite, No. 10, p. 150.
** Braithwaite, No. 13, p. 285.

in die, will soon effect a cure. Dr. Bird remarks that syphilitic eruptions are exceedingly frequent among the infants of the lower classes, and that the simple treatment just mentioned is very effective in their cure. There are few affections among children the treatment of which is more satisfactory, than that of syphilitic eruptions—indeed they frequently seem to fatten upon their medicine. If the mercury cause diarrhœa it is sufficient to suspend its use for a time."*

In "Evanson and Maunsell on Children," Dr. Maunsell gives us the following directions in the treatment of this disease. "Our plan of treating a child is, to administer from one to two grains of hydrarg cum creta, two or three times a day, (according to the age,) until the eruption and snuffles disappear. The child usually fattens under this treatment—and salivation is never produced, at least we have never seen it in a child under three years of age. Should the mercury affect the bowels, which sometimes happens, we must combine with each dose, from half a grain to a grain of Dover's powder, or the powder of chalk and opium. The time required for treatment is from six weeks to two or three months, and the medicine should always be continued for two or three weeks after every symptom has disappeared; even when this precaution has been observed, the disease may return, and the mercurial treatment must be again and again resumed. The sores about the anus and other similar situations, will often be benefitted by the application of black wash, or of dilute citrine ointment, and when they become very indolent it may be necessary, towards the termination of the treatment, to stimulate them with nitrate of silver or sulphate of copper."†

Dr. Bulkley, in his edition of Cazenave and Schedel on the Skin, observes in a note, "In infantile syphilis, I am in the habit of giving to the child, small doses of hydrarg. cum creta, or calomel with chalk, sometimes combined with minute portions of Dover's powder, and having the warm bath used freely. The nurse must be put under appropriate constitutional treatment at the same time."‡

This completes our review of the treatment of syphilis in infants.

I have but a single apology to offer, for trespassing upon your patience, and consuming so much of the valuable time which we spend here this evening, in the presentation of the paper which has been just read. It is this: the subject is one of extreme interest, and one with which it is of the highest importance we should all be thoroughly acquainted. Never yet having met with a full treatise on the disease, and desirous to investigate it for my own information, I have thought proper to preserve the results of my investigations as in the above paper, and as I have done this evening, give you the full benefit of my labors. I am satisfied that I have thus, though in a very hasty and imperfect manner, contributed my quota toward supplying a *deficiency* which I must believe you have all regretted equally with myself.

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* Braithwaite No. 11, p. 176. † Ibid. p. 354. ‡ Ibid. p. 312.

PART SECOND.

CRITICAL ANALYSIS.

ART. VII.—*Lectures on the Theory and Practice of Physic.* By JOHN BELL, M. D., Member of the American Med. Association, and of the Med. Soc. of the State of Pensylvania; Fellow of the College of Physicians of Philadelphia; Member of the American Philosophical Society, and of the Georgofili Society of Florence, &c., &c. And by WILLIAM STOKES, M. D., Lecturer at the Medical School, Park-street, Dublin; Physician to the Meath Hospital, &c., &c. Fourth edition, revised and enlarged. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1848. 2 vols. 8vo., pp. 784—976.

IN the January number of the Journal for 1845, the third edition of this valuable work was noticed, and we are much pleased to see that the opinion then expressed of its additional value has been fully recognized by the profession. The unwearied exertions of Dr. Bell to render this work fully adapted to the wants and exigencies of the profession, are clearly to be seen on a perusal of the additions made to the present edition. The amount of matter already furnished by Dr. B. amounts to "upwards of fourteen hundred pages," making the volumes to embrace a complete course of practical medicine. The present edition has been thoroughly revised; many of the subjects have been recast; others have been introduced for the first time, and in the departments relating to pathological anatomy, diagnosis and prognosis, the recent discoveries and conclusions drawn from investigations made in organic chemistry and by means of the microscope have been introduced. "Although," to use his own words in the preface, "it must be confessed, that as yet these important matters are not so closely blended with therapeutics as to form a homogeneous mass;" he considers, however, that a notice of them is due to medical science. And in following out this consideration, he has borne in mind the necessity of not allowing them to encroach upon the large space necessarily devoted to clinical medicine. Dr. Bell claims not to have been backward in adducing his own experience on all portions of the work when he deemed it necessary, and yet he lays no claims to originality; he has "been intent

on exhibiting material facts and deducing what he believes to be legitimate consequences, he has drawn freely from all available sources of information, without seeking to merge the enviable character of honest historian in that of chief actor." With these preliminary remarks, presuming that our readers are acquainted with one or more of the previous editions of the work before us, or at least with the review mentioned above, we will now introduce to their notice some of the more important additions found in the present.

The first subject in the order of the work which has met with any extensive alteration, is that of *Epidemic Cholera;* six lectures, comprising seventy-two pages, are devoted to its consideration. It will be contrary to the design of the present notice to enter into a lengthy review of this subject. Owing however to the recent appearances, and as some have prophesied, of a probable return of this dreadful scourge to our own country, we cannot forbear giving our readers a partial statement at least of our author's views. Lecture thirty-ninth of the series commences with an historical account of its rise and progress, taken principally from the report made by the College of Physicians of Philadelphia to the Board of Health, drawn up by the author and Dr. Condie. Lecture forty is devoted to considerations of its causes and apparent connection with other diseases, and closes by an attempt at the solution of the question, "*Is cholera contagious?*" He cites the opinions of various writers *pro* and *con* on this subject. The view entertained of its contagious character by Drs. Copland, Watson, Graves, and in our own country, by Dr. Dickson, is referred to, and notwithstanding the eminent array of talent as well as reported facts which he presents as favoring the doctrine of its contagious nature, Dr. Bell expresses his decided "disbelief in the contagiousness of cholera."

The symptoms of epidemic cholera as spoken of in lecture forty-one, our author classes in four divisions: 1. *Diarrhœal*, or *Cholerine.* 2. *Confirmed Cholera.* 3. *Collapse.* 4. *Reaction* or *Consecutive Fever.* We deem it not necessary to enter into the symptoms which, according to Dr. B., denote the different stages of the disease, as given above, but pass on to lecture forty-second, which treats of the *Prognosis, Post-mortem Appearances* and *Laws of Recoveries and Mortality of Cholera.* The subject of Prognosis has received no new additions. The same may be said of the description of the post-mortem appearances, under the head of "*Changes in the Fluids in Cholera,*" the researches of Dr. Foy, at Warsaw; MM. Rose and Wittflok, at Berlin; Dr. O'Shaughnessy, at London; MM. Lecanu and Rayer, at Paris, are drawn upon. Dr. Bell considers that "certain physical and chemical changes of the blood are in a great measure peculiar to epidemic cholera." The most striking of these are its blackness, which has a shining appearance, and when spread upon a white surface, resembles in color the darkest cherry. It fills the right side of the heart and the great veins, and is found of the same character in the left cavities and in the large arteries. It is less serous than common, and when exposed to air, does not become reddened as soon as healthy blood. The ramifying capil-

laries of the membranes are filled, "and blood can be drawn almost as readily from a vein after death as before." Dr. Bell closes by saying that—

> The chief changes, therefore, in this fluid, during an attack of the disease, is in its serum, by the escape of its water and saline ingredients, particularly the alkaline carbonates. There is also notable diminution in the quantity of fibrin. The proportion of albumen, on the other hand, is greatly increased: Dr. O'Shaughnessy found that there were 133 in the place of 78 parts, the healthy standard in 1000 parts. The blood-corpuscles fall below the average. Urea was detected in the serum of the blood of some cholera patients who had secreted very little urine for several days. Urea has also been found in the bile of cholera subjects.
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> The fluid ejected from the bowels was found to contain carbonate, acetate, muriate, phosphate and sulphate of soda, coagulable lymph, or a compound of albumen and fibrin, some mucus and water. The sediment in the evacuations in cholera is composed, according to Dr. Bohn of Berlin, of fragments of the epithelium of the mucous membrane of the intestines.

The laws of mortality and recovery in this disease are next taken up. The conclusions of Mr. Farr, published in 1837, by the Roman Board of Health, are given, accompanied by a series of tables constructed from a registry of 9372 cases kept by this gentleman. The facts deduced from the tables given, says Dr. B., "prove that in cholera, the probability is generally not in favor of death; they also establish the importance of early treatment, for half the deaths happen in the first twenty-four hours." The treatment of this affection occupies two lectures, viz. xliii. and xliv.; and the classification laid down while speaking of the symptoms is observed. Upon this subject various and diversified have been the opinions of medical observers. The deductions drawn from statistics furnish at present but little assistance, owing to their contradictory character and the want of uniformity in their classification; as an instance of this we may refer to the period of collapse and the different ideas conveyed by its use by different writers. Again but little is known of the natural history of the disease and the bearings or influence of peculiarities of constitutions upon the per cent. of mortality. We lack important data on these points and the obscurity which surrounds the therapeutics of this affection will continue until these are furnished.

The treatment recommended in its different stages, may be briefly stated as follows: In the first stage, or that of cholerine, as it has been termed, "the treatment should be precisely identical with that in common diarrhœa, when we are very desirous of shortening its duration." The excessive nausea may be relieved by the use of a few drops of tinct. camphor or cajeput oil on a lump of sugar. In the value of the first, Dr. B. has great confidence. If the symptoms continue after the evacuation of the bowels by medicine, "the safer practice will be to draw blood from the arm to the extent of ten or twelve ounces." Dr. Bell also favors the administration of ipecacuanha, "the good effects of which extend beyond the mere removal of irritating substances from the stomach."

For ourselves, we have long since been led to believe that the use of bloodletting, except in cases of strong arterial excite-

ment—or the use of cathartics, except in cases when *strong* reasons lead us to entertain the opinion of the presence of fecula or scybala in the intestines, is not admissible, and should not, as a general rule, be resorted to. Dr. B., it appears, is fully aware "that exceptions have been taken to purgatives in the formative stage of cholera"—that hypercatharsis, vomiting, and even death itself has followed their exhibition. Still, he believes, that "in a majority of cases a mild purgative, given under the precautions already laid down, is fully adequate, in the formative stage, to prevent the coming on of regularly formed cholera.

When the second stage, or that of confirmed cholera, has set in, and there is an absence of bile in the matters discharged—extremities cold and clammy, pulse small, respiration laborious, eyes suffused, Dr. B. says, that he "can testify from personal observations to the good effects of an emetic of twenty grains of ipecacuanha;" he has also found the Russian vomit, composed of two table-spoonfuls of salt to a half-pint of water, of great service when other remedies failed. Simultaneous with the administration of the emetic, an enema of salt in warm water should be resorted to. Should moderate re-action follow, we may rest satisfied as spectators. *Bloodletting* should only be resorted to when the patient is of a sanguineous habit, and complains of pain in the abdomen, headache, or vertigo, with accelerated pulse; or when vomiting and purging is severe and accompanied with much epigastric weight, or if heat and pain be present, leeches may be conjoined. "A remedy akin to bloodletting, in its tranquillizing effects in cholera, is *calomel*." Often has he witnessed its eminently curative impressions, first on the nervous and sensitive surface of the digestive mucous membrane, and, secondarily and by sympathy, on the respiratory and genito-urinary ones. It should, however, be administered after blood-letting, in cases which require it, or in others after the administration of an emetic. Its use ought to be restricted to the first and second stages of cholera; "it may sometimes be called for in the fourth stage, or that of re-action, with fever."

Opium.—Dr. B. deprecates the indiscriminate use of this article. It is one to which the attention of the physician is generally first directed, and one from which, *a priori*, we should expect the most beneficial results. In regard to its use he says:

> When we are sure that no errors in regimen have been committed, and that no irritating ingesta or imperfectly-digested matters are lodged in the alimentary canal; and when we have to deal with a nervous subject of a thin and spare habit, and in whom fear has had its full share in bringing on the attack, we not only are free but bound to prescribe opium very early in the disease, and to repeat its administration at short intervals, but in moderate doses, beginning with a grain or its equivalent in laudanum, and continuing in doses of half a grain every hour, until the desired effect is observed or its failure is obvious.
>
> As a general rule, it will be proper to wait until the stomach is relieved by an emetic, and the bowels by saline or even simple aqueous enemata; or, in the cases justifying the practice, until inflammatory congestion has been abated by venesection or cupping,—before we administer opium, at least with the freedom and frequency that would imply our mainly relying on it. If

the indication in the mind of a physician be to procure a discharge of bile, recourse to opium will be withheld yet a while longer until calomel has been administered, or until this latter shall be given in combination with it.

Throughout the course of the observations of Dr. Bell on this disease, it is plain to be seen that he believes in "the congestive character of cholera, and of its analogy to malignant intermittent fever," in order to meet the therapeutical indications which grow out of such pathological views, he believes that

Quinine ought to be had recourse to, and administered in full doses at short intervals, in the disease now under consideration, in the manner which has been found to be so eminently serviceable, in the recognized malignant or pernicious intermittent and remittent—the congestive fever of the southern and western portions of the United States. But, if satisfied of the propriety of the use of quinine, we shall not wait for a subjection of the cholera symptoms, as practised by Dr. Jephson, but give it, either from the very beginning of the disease, or at the latest, after an emetic or venesection. As in the instance of the disease to which we suppose cholera to be analogous, we may give the quinine in combination with calomel or with opium, according to the additional indication which we propose to fulfil,—as, for example, emulging the gall-duct by calomel, or relieving the atrocious spasms by opium. Our confidence in this remedy will depend, in a considerable degree, on the locality in which the cholera prevails, and the predisposition of the patient to attacks of periodical fever, as well as the extent of prostration and want of re-active power at the time.

The novelty of these views claim from the southern portion of the profession a careful consideration. We do not, however, believe them in unison with the character of the disease as it appears in northern climates.

External stimulants.—He believes in the "superior efficacy of dry frictions in a uniform manner, sedulously continued, by a mixed movement of pressing and grasping the skin and muscles beneath, especially of the limbs and back." In regard to the use of drinks, the taste of the patient may be safely consulted; care, however, should be observed, not to allow them more than a mouthful at a time.

Lecture xliv. is occupied in the description and treatment of the stages of collapse and re-action—or choleric fever. A good resumé of the opinions of different writers is here presented; but he adduces no new point from his own experience.

Three lectures are devoted to cholera infantum.—These lectures have been entirely recast; and Dr. B. claims to have "placed upon a surer basis than before the pathology of this affection." He discards the hepatic origin of the disease, and asserts the "identity of follicular gastro-enteritis with cholera infantum."

As early as 1812, Dr. James Jackson, of Boston, published a paper in the New-England Journal of Medicine and Surgery, vol. 1st, page 12, entitled, *Some Remarks on Morbid Effects of Dentition, more particularly with reference to the Diseases of Teething Children in Summer and Autumn.* The dissections from which the pathological deductions of Dr. J. were drawn, were made by Dr. J. C. Warren and himself. The results of their combined dissections

show that "the mucous membrane of the stomach, together with that portion of the small intestines most immediately connected with the stomach, has been found affected with inflammation. It is to this that the peculiar phenomena of cholera infantum may be traced." From a careful perusal of this paper, however, it does not appear that Dr. J. located the change in the mucous follicles of the small intestines, or for a moment entertained the idea that in these latter was primarily seated the true pathological change of this disease. To Dr. W. E. Horner belongs the credit of first demonstrating by careful dissections, the existence of "clusters of muciparous glands or follicles of the small intestines, very distinct to the naked eye, and with their orifices enlarged and tumid, and often studded with minute ulcerations." A full account of Dr. H.'s dissections and views may be found in his *Treatise on Pathological Anatomy*. In the New-York Medical Gazette for 1841, Vol. 1st, Nos. 18 and 19, Dr. W. C. Roberts has given an elaborate analysis of the writings of American practitioners on this disease. Dr. R. has most certainly set forth in a clear light, the views of Dr. Horner in regard to the follicular origin of the disease, although he does not commit himself to a clear expression of his own opinions in relation to the character of the softening of the mucous membrane of the stomach and intestines, which accompanies it. Certain it is, however, that the labor of Dr. R. has done much to divest the minds of medical men at the present time of the hepatic origin of cholera infantum, and at the same time directing their attention to the views which Dr. Bell in the main now holds. Of the correctness of Dr. Horner's views, Dr. B. is fully convinced, as will be seen from the following passage:—

> A morbid state of the follicular apparatus of the intestinal canal being shown to be the chief organic cause of cholera, at least of the more urgent symptoms of vomiting and purging, with fever, it remains for us to ascertain the circumstances under which these glandular bodies have become thus morbidly developed and ulcerated; or, in other words, why they should become specially the seat of irritation and inflammation at this time.

These views, he thinks, are farther strengthened by a recurrence to a law of physiology, which embraces the fact that "there is a very great increase of growth, and organic functional activity of the follicles of the whole digestive system, keeping pace with that of the lymphatic glands, commencing at the period of first dentition—from eight months to two years from birth." This accounts for—as Billard has stated in his work on infants—the great readiness of follicular inflammation in the mouth, or follicular stomatitis *(aphthæ)*, and of follicular gastro-enteritis and entro-colitis in children from the eighth month to the first few years from birth. "The causes which more especially affect this division of the follicular system are, irritating ingesta acting primarily on the digestive mucous membrane itself, and atmospheric heat acting secondarily on it through the skin and pulmonary mucous membrane."

> If this view be admitted, we have a ready explanation of the occurrence of cholera infantum in children at a particular age; that in which the digestive follicles are most notably developed, and most susceptible to new impressions; and also that in which this susceptibility is liable to be injuriously acted on by

the irritation of teething. But the physiological predisposition may and does often pass away, if the process of dentition be easy; and it requires the operation of another cause to generate open and violent disease. This cause is found in high heat; and we see now why there must be coincidence of a particular age or of a predisposition with a particular exciting cause or even causes. Follicular development and susceptibility, teething and high atmospherical heat, can only be brought into conjoint action to the production of diseases within a limited period: it is that in which cholera infantum takes place.

From the foregoing observations, which we believe clearly set forth the views of Dr Bell, the reader will readily see how completely they agree with those of Dr. Hallowell, as contained in his paper published in the last No. of this Journal, which we copied from the American Journal of Medical Science for July, 1847. How far these views place the pathology of this disease upon a surer basis than before, we leave the reader to judge. The therapeutic indications growing out of them are, in the first stage, to remove gastro-intestinal irritation, whether functional or organic, which latter depends on follicular enteritis, associated not unfrequently with erythemoid inflammation of the mucous membrane of the intestines, and occasionally of the stomach. In the second stage, when the diarrhœa is fully developed, we have to bear in mind the probability of softening of the mucous membrane taking place, or that the follicular disease is in a stage of ulceration, or on the decline. With regard to treatment, nothing new is given, and such being the case, we do not feel disposed to enter into an analysis of it, but pass on to a notice of the additions made to the *Diseases of the Urinary Organs.* Upon perusal, we find nothing very important added to the pathology or therapeutics of this department until we come to that portion which treats of urinary deposits; here the views of Drs. Prout and Bird are freely drawn upon, but as Dr. Bell's only endeavor is to present a careful analysis of their views, we must refer the reader to the work itself. We are not a little surprised that the subject of *Bright's disease* or granular degeneration of the kidney, a disease of great importance in a pathological point of view, should be so lightly passed over. Although, since the last edition of the work, numerous important additions have been made to our knowledge of the pathological anatomy of this disease by the researches of Toynbee, Johnson and Gairdner, still no reference whatever is made to them. For one, we should have been very much gratified to have discovered the workings of the same masterly pen here as was evinced while treating of cholera infantum.

The addition made to the diseases of the female organs of generation are in a measure more satisfactory. In Lecture lxxiii. the subject of leucorrhœa is treated of, from which we gather the following.

The division of leucorrhœa into acute and chronic is the most natural, and for its treatment the most useful. *Acute metro-vaginitis* and *chronic metro-vaginitis.* The former seldom lasts longer than from six to ten days, both forms are of more frequent occurrence in

variable climates, in which cold and moisture prevail, and during spring and autumn, than in warm regions and seasons.

Thus it has been observed that the disease is more common in the north than in the south of France. Residence in a city constitutes a strong predisposing if not exciting cause. There are instances of females, so soon as they begin to reside in a city, after having lived in the country, becoming leucorrhœal. Low and damp localities, and houses recently built, or from other causes not properly dry, have a similar effect.

There are not wanting examples of the epidemic prevalence of leucorrhœa, especially when spring and autumn are colder and more moist than usual.

Of the impropriety of the use of the term leucorrhœa to designate a disease, when it is in fact merely a symptom of an organic change or lesion, Dr. Bell comments upon with great justness, and thinks that it is as little applicable as any other that could be given on the strength of an occasional physical character of the discharge. Speaking of its causes, he says:

The most frequent organic lesion giving rise leucorrhœa in adult females, who have had sexual intercourse, is that of the *os* and *cervix uteri*, which are sometimes simply engorged, in others inflamed, and in many more exhibit a granular surface with ulceration. Of fifty-nine cases observed or referred to by Dr. Roberts, in his valuable paper on leucorrhœa, (*New-York Journal of Medicine,*) thirty-three were accompanied by ulcerations, and in forty the discharge was seen to issue from the *os tincæ*. Similar are the results of M. Marc d'Espine's observations, soon to be noticed under the head of diagnosis.

Dr. James Henry Bennet, in the opening of his "*Practical Treatise on Inflammation, Ulceration and Induration of the Neck of the Uterus,*" remarks: "With reference to leucorrhœa, indeed, I have ascertained, to my complete satisfaction, firstly, that, setting aside cancerous disease, in the very great majority of adult females, who have been exposed to sexual intercourse, a confirmed leucorrhœal discharge, whatever may be its nature, is accompanied by inflammation of the neck of the uterus; secondly, that this inflammation seldom exists long without producing ulceration; and, thirdly, that ulceration is *always* accompanied by more or less engorgement (swelling with or without induration) of the substance of the uterine neck."

The treatment proposed consists, in the acute form, of the use of leeches to the labia, cups to the loins and sacrum, and "to administer the salines and antimonials, alternating with two or three doses of calomel." And for topical applications, sponging of the genital organs and groins with moderately warm water, and the use of tepid injections into the vagina. In the chronic form, the use of blue mass with aloes, in order to act freely upon the bowels, after which, in order to secure their regular action, the rhubarb and soap pill may be directed. The frequent use of cold water by means of the sponge to the loins, sacrum, perineum and inguinal region, he has found of great service, and in hysteric females, the use of the warm bath at the temperature of 94° on every second day. Great care should be observed in the use of injections. Simple warm water will frequently be found sufficient; when the disease has been of some standing, the health feeble and the vagina relaxed, and the discharge simply mucous, astringent injections, consisting of decoction of rhatany or so-

lution of alum, may be used; if they fail, nitrate of silver of from three grains to half a drachm to the ounce of water, may be used; he has, occasionally, found a solution of chloride of soda or lime of great advantage. Internally, balsam copaiva, cubebs and iodine; he has been much pleased with the iodide of potassium and also the tincture of iodine. The preparations of iodine prove the most useful in cases of purely uterine leucorrhœa.

The next is a very interesting lecture on *Ulcerous or Granular Metritis*, made up in part of selections from the late work of Dr. Bennet. Dr. Bell believes its "etiology and symptoms are nearly identical with those of chronic metritis in general," unconnected with a syphilitic taint. In speaking of the treatment, he says,

Inflammation of the mucous membrane of the cervix is so soon followed by ulceration, that you will seldom be called on to treat the first alone; and, on the other hand, the ulceration being the result of inflammation, you must bear in mind the double indication, in directing your remedies. Hence, small bleedings, in the manner heretofore advised for chronic metritis, rest, posture, mild vaginal injections and laxative enemata, will, in subjects of a sanguine temperament, or whose circulation is unduly excited, and in whom there is much sanguineous congestion of the cervix, precede the use of the more strictly topical, which in this disease constitutes the most important part of the treatment.

When the period of inflammation has passed, or when this latter has taken a more indolent course, astringent injections, such as solutions of alum, and sulphate of zinc, infusion of oak-bark, rhatany, Peruvian bark, galls, &c., are to be administered. The sugar of lead, commonly mentioned with astringents, is in fact sedative, and is adapted to irritable and painful states of the neck with ulceration when the former would be inadmissible.

In general, however, these remedies will fail us in granular ulcerations of the *cervix uteri*; and we are constrained to apply caustic, of some kind or another, directly to the part affected. This is done through a speculum; different physicians and surgeons extolling different ways of cauterization. The simplest and the most efficacious is the nitrate of silver in its solid state, with which, brought to a point, the ulcerated surface should be lightly and quickly pencilled, after you have carefully wiped off with lint any adhering mucus or other secretions. Some prefer using the nitrate in solution, and applying this latter by means of a fine brush. Emollient or slightly astringent injections, three or four times a-day, will be used after cauterization; and if there be any constitutional re-action approaching to fever, a purgative or two may, also, be administered.

An examination of the parts after a week or ten days, will, generally, show a subsidence of inflammation and an approach to, if not a complete, cicatrization of the ulcers. One application will, however, seldom suffice; and after an interval of eight or ten days, it will be well to repeat it. With suitable precautions, in regard to posture and the use of a proper instrument, the solution of nitrate of silver may be injected *per vaginam*, so as to be applied almost directly to the *cervix* and *os tincæ*. For this purpose, the patient ought to recline on the side of a bed or a lounging chair, with the pelvis elevated in such a way as to make the vagina an inclined plane, of which the cervix is the lowest part. When it is desired to apply the fluid to the uterus and not to the vagina, the terminal bulb of the projecting tube of the syringe should be carried in, so as to be felt at the cervix or mouth of the womb, and then withdrawn half an inch, before the contents of the portion are thrown against the diseased surface. If there should be vaginal heat and pain afterwards, a solution of common salt will soon neutralize any remains of the solution of the nitrate which has not combined with the animal tissue.

The acid nitrate of mercury is a fluid caustic, to which many of the French practitioners are partial. It is a solution of deuto-nitrate of mercury in nitric acid. It is too powerful a remedy in slight ulcerations; and when it is used, a longer period ought to elapse before a repetition than in the case of the nitrate of silver. The proportions laid down by Dr. Bennett, in his valuable treatise, are, of eight days' interval for the acid nitrate of mercury, and four for the nitrate of silver.

Lecture lxxvi. is occupied by the consideration of *Tumors of the Uterus.* In the general description and classification, he has drawn freely upon the valuable work of Vogel, and in the particular description and treatment, upon that of Ashwell. It may be looked upon as an excellent compilation, from which the reader will, in a condensed view, obtain all the more essential points relating to a general knowledge of them.

The next subject which claims our attention, in the order of the work, is that of croup, or as Dr. B. terms it, *Laryngitis Membranacea.* In treating of the morbid anatomy of this affection, he expresses the belief that the inflammation is primarily seated in the *Larynx.* It will be well for the reader to observe this, for upon this fact a very important therapeutic indication depends—one which we are sorry to see our author has but passingly noticed in delineating the treatment. We quote his own remarks:

The anatomical peculiarity which distinguishes croup from other varieties of laryngitis, is the production, primarily in the larynx, of a false membrane. This production is secreted from the mucous or lining membrane of the larynx; it consists of albumen with a proportion of phosphate of lime and carbonate of soda; and occasionally fibrine. It is corrugated and hardened by diluted sulphuric, nitric, and hydrochloric acids; and, on the other hand, rendered softer and diffluent by concentrated acetic acid, liquid ammonia, alkaline solutions and a strong solution of the nitrate of potassa. A microscopic examination shows it to be about a line thick and of a slight consistence: it is composed almost entirely of ordinary pus-globules, mixed with inflammation corpuscles, and a species of cell double the size of the pus-globule, but otherwise similar to it. Regarding this false membrane or lymphatic exudation as a product of inflammation, we should naturally expect to see the surface from which it is given out evince this morbid state. Accordingly, the mucous membrane itself is often found to be rough, red, and thickened; but at other times one is not a little surprised to find it unchanged in these particulars. It is no forced supposition, however, that the inflammation may be so far relieved by this pseudo-membranous secretion that there would be diminished redness, which, as in many other cases of greatly-increased vascularity during life, disappear entirely by death. The same explanation will apply to those cases in which there is neither false membrane nor increased redness observable after death, although there had been unequivocal symptoms of croup before this termination. Even when we speak of this new product as the anatomical character of croup, we must at the same time admit that it is not always present: it should rather be regarded as one of the chief proofs of an inflammation of the mucous membrane of the larynx, which may still be checked early; and thus the lymph will not be given out with sufficient freedom to form the membrane. Sometimes, in place of this latter lining entirely the cavity of the larynx, we find patches and shreds, and at times merely thickened mucus.

But, farther observation shows, that the morbid action in croup, is not long confined to, although it commonly begins at, the mucous membrane of the larynx. The trachea and bronchiæ are soon implicated, and to such a degree

as to be lined with this membranous exudation now continuous with that of the larynx; and the bronchiæ are filled with a tenacious mucus.

The treatment which he proposes is that generally laid down by most systematic writers; he insists upon the early adoption of a thorough antiphlogistic course—and before entering upon its local treatment, bespeaks the attention of the reader to some remarks on the therapeutic action and curative powers of tartar-emetic and calomel as remedies in croup; he thinks they are not regarded in all their therapeutical bearings as they ought to be, and is fully persuaded that the views he entertains of their physiological and therapeutic action fully harmonize with the pathology of the disease. We offer no apology for quoting the following remarks on this subject, although lengthy.

Not infrequently the relief from an attack of croup will be as permanent as it was speedy, by means of vomiting and its accompanying effects; and no other remedy after an emetic will be required for the solution of the paroxysm. I would lay stress on the words "accompanying effects," which I have just used; for it seems to me that they are overlooked by not a few practitioners, who think that the simple act of vomiting is itself the prime and sole means of detaching and expelling the morbid accumulations in the air-passages; and that the chief mischief from the disease consists in the mechanical obstruction of these passages. With such persons the selection of an emetic is a matter of comparative indifference, provided they can cause their patients to vomit. But a very slight retrospect of the pathology of croup must convince us, that, from the outset, our remedies should be selected with reference to their power of abating morbid arterial and secretory action, not only in the larynx and trachea but in all the bronchial ramifications; and, also, of causing sedation of the vessels of the lungs proper as well as those of the brain. The effects produced by an emetic should harmonize with, and in degree be a substitute for, those caused by the next remedy, to which, if the paroxysm persists, we must immediately have recourse. This next remedy is venesection.

Now, we know of no emetic substance which is comparable in these respects with tartar emetic. It diminishes the excitement of the heart and arteries, is a sedative also to the capillary tissue, checks morbid secretion, itself dependent on capillary excitement, and allays spasm—effects these manifested after vomiting, but which often precede this latter and are independent of it. The mere act of vomiting is an evidence, rather than a cause, of relaxation: it will serve to eject mucosities and albuminous shreds and membranous exudations from the larynx and trachea; but there must have been an antecedent state of diminished excitement and turgescence of the mucous membrance and its withdrawal from the adherent plastic lymph, before this latter can be readily detached and new formations prevented. It is true that certain substances, by a peculiar irritation of the gastric nerves, will call the muscular parietes of the stomach and the diaphragm and abdominal muscles into combined action, and give rise to vomiting; but their effect is confined merely to evacuating the contents of the organ; and if their dose have been large, they cause continued straining efforts to vomit, with, at the same time, little or no increased secretion from the tracheo-bronchial vessels and mucous follicles; but rather an accumulation or temporary congestion of the thoracic and cranial cavities. Such emetics as these, sulphate of copper, for instance, may produce continued expulsive motions; but their sedative effect on the mucous membrane of the air-passages being slight, or none at all, they fail to arrest its morbid secretion, or to produce a separation of that which is already formed. The notion, that the mere act of vomiting will separate, to any notable extent, adherent false membrane, or that the mere scraping off of membrane and glairy mucus will give

much relief to a croupy patient, the mucous tissue of whose larynx and trachea is inflamed, is too purely mechanical.

Our object, then, being to abate and speedily remove the morbid excitement manifested by abnormal secretion, and the turgescence and injection of the mucous membrane of the air-passages, and particularly of the upper portion, we shall have recourse at once to the agent best calculated to attain this end. Some writers recommend us to use, in the precursory or forming stage of croup, ipecacuanha wine or syrup of squills, and to reserve the tartar emetic for the inflammatory stage. Dr. Cheyne, who advises an emetic in the inflammatory stage, but without specifying the substance to be used, lays great stress on the peculiar advantages to be derived from the administration of tartar emetic in the suppurative stage. Having myself seen so repeatedly the failure of attempts to arrest the forming stage of croup by the domestic prescriptions of ipecacuanha wine or even by the compound syrup of squills, I uniformly prescribe at once a solution in water of tartar emetic, proportioning the dose to the exigency of the case, that is, to the probable duration and degree of inflammation. By this means, the disease is either at once prevented from maturing, or we acquire a measure of its violence and an index to a speedy recourse to the lancet. In a majority of cases of even distinctly-formed croup, tartar emetic will be found adequate to stop the paroxysm, by removing the peculiar cough, restoring the voice to its natural tone, and giving ease to the respiration; while, at the same time, it procures the discharge of mucus, and, it may be, of albuminous shreds and portions of false membrane. The little patient in a state of languor hardly unpleasant, induced by the operation of the tartar emetic in the manner already described, now goes to sleep; and the anxious mother is in a great measure relieved from her solicitude for the remainder of the night.

Not only in the incipient stage, but in the milder forms of actual croup, are other substances preferred by some practitioners to tartar emetic; on account of the prostrating effects of the latter. Were our diagnosis so certain that we could ascertain positively the precise degree and duration of the changes in the mucous membrane, from its first increase of natural secretion to the exudation of plastic lymph, and the congestion and thickening of the membrane itself, a graduation of medicines at this time might be attempted; but as this is not in our power, and as we know that, from the first coming on of hoarseness and cough, precursory of croup, there is a tendency to increase of excitement and phlogosis of the passages, the safe practice seems to me to be that which shall prevent these probable and often dangerous and fatal results, even though it be at the expense of momentary strength, and with the tax of temporary prostration. I believe, therefore, that the early use of tartar emetic is not only the safer but the milder practice, as it will most probably prevent unpleasant consequences, and save the necessity of recourse to harsher and complex measures which would be called for, if medicines of less power had been used in the beginning of the disease. I have met with but one case in which alarming prostration was caused by a persistence in full doses of tartar emetic, after the violence of the paroxysm of croup had been subdued by the medicine. The mother mistook my direction, to give the solution conditionally, that is, if the symptoms returned after my departure, for a positive injunction; and the result was a sinking of the vital powers, and *deliquium* of my patient; from which state, however, I soon succeeded in restoring her by active frictions, sinapism to the epigastrium, and laudanum and ammonia internally. It will often be proper, if, after free emesis, there be much straining to vomit without corresponding discharge, to give a drop or two of laudanum to the little patient, and to allow it to sleep, for which it will be sufficiently prone, for a while.

You must by this time be fully aware of the therapeutical basis on which I rest my use of tartar emetic in croup, as well as in so many other of the phlegmasiæ. It is not merely as an emetic, but as a contra-stimulant or sedative, and opposed to inflammatory action irrespective of its procuring evacu-

ations, that I habitually use this medicine. Its utility in this way is beginning to be perceived by some of the practitioners of Great Britain, one of whom, Dr. Wilson, of Kelso, relates his successful use of tartar emetic in croup; he having cured ten out of twelve cases. He gave, after leeches had been applied to the larynx, followed by warm poultices frequently renewed, the antimonial salt, in doses of one-fourth to one-third of a grain, at first every hour, until a decided impression was made, and afterwards every two hours, till the patient was considered in safety. The toleration of the medicine did not extend so far as that it did not vomit at first quite freely; but it had no action on the bowels which required castor oil or some other laxative to obviate costiveness. For children, Dr. Wilson properly directs from half a minim to a minim of laudanum in addition to the tartar emetic.

With these opinions, and the ground on which they rest respecting the operation of tartar emetic, you may readily suppose that I put no faith in blue vitriol (sulphate of copper). Its astringency following emesis is not a property which we want at this time.

It is not a little vexatious to find writers of established and deserved reputation take such limited views of the effects of *calomel* in various diseases. One will tell us, that unless it purges it will do little good; another assures us, that its administration will be useless in this stage of croup, because time is not allowed for it to touch the mouth. This last notion, that we cannot procure the full revolutionizing and alterative effects of mercurial preparations in general, unless the salivary glands are inflamed and incipient ptyalism caused, is rank empiricism, and has completely blinded us to their therapeutical operation. Calomel, which we may speak of as in a great measure representing the other preparations of mercury, when taken into the stomach acts very speedily on the mucous membrane of this organ and of the small intestines; and, in a short time, on the liver and pancreas, which, by means of their excretory ducts, are placed in close and continuous relation with the intestinal mucous surface. Soon the large intestines are affected, and increased defæcation is the consequence. But the operation of the medicine, even in purgative doses, is not confined to the gastro-intestinal canal and its subsidiary glands: it is extended to all the other mucous surfaces—the respiratory in one direction and the genito-urinary and its secretory apparatus in another; and is followed by increased expectoration and diuresis, together with an abatement of prior irritation which may have prevailed in one or other of these divisions. Calomel acts in a more especial manner on all portions of the mucous system, and through it on their glandular appendages; and hence its use is more immediately applicable to irritations and inflammations of the mucous membranes and their glands than to other forms of disease. Most mischievous has proved the notion that the general system is not affected by mercury, and notably calomel, unless and until ptyalism is produced. Under the influence of this error, immense quantities of the medicine are introduced into the stomach, with the effect often of a great depression of the vital powers, and particularly of the functions of the nervous system, cold skin, excessive inertia, &c.; the prescribing physician all the while waiting for the action of the calomel. In this way the patient may be actually destroyed by mercury, without any suspicion being entertained of the fact by the expectants for salivation.

The topical remedies mentioned by our author, consist in the use of blisters, stimulating liniments and ammoniacal cerate, composed of simple cerate ℥j., carbonate of ammonia ℥j., to be thoroughly mixed, and two drachms to be applied to the throat, after which it is to be covered with a bag of hot ashes—he also mentions the use of the solid nitrate to the fauces and pharynx, and says: "In primary and common croup, while we do not forget cauterization, we should be aware that it must not divert our attention from the more

active and heroic remedies before mentioned." It will be remembered while we were speaking of the laryngeal seat of croup, we mentioned that a very important therapeutic indication was based upon it; the only allusion made by Dr. B. which bears in the least upon it, is contained in the passing notice of the application of the nitrate of silver to the fauces and pharynx as stated above. It is a little surprising that Dr. B. should pass by the several cases reported, within the last year in our home journals, where a solution, varying from forty to sixty grains of the nitrate to the ounce of water was applied to the glottis and larynx, and which proved signally successful in all. It is this to which we alluded in our previous remarks, (for a full notice of its use, &c., we refer the reader to the article in the last number of the Journal, page 91.) For ourselves we perceive no valid objection to the treatment, and as the value of the nitrate in controlling the progress of acute inflammation of the skin and the mucous membrane of the mouth and fauces is fully admitted, we see no reasonable objection to its extended application to the treatment of croup—the possibility of its application to the larynx having some time since been fully proved.

In looking over that portion of his remarks which relate to the treatment of chronic laryngitis, we observe the following. We copy it as a matter relating to the history of the treatment of the disease in this country, our opinion having been previously expressed in relation to this matter in Vol. VII. page 109, of this Journal, to which we beg leave to refer the reader. Dr. Bell says:

As discussions have been held in the medical and newspaper press on the subject of topical applications to the larynx in the treatment of chronic diseases of this organ, involving a question of priority of practice, which has been claimed by or for Dr. Horace Green of New-York, I shall mention a few facts relating to my own reading and experience in the matter. Dr. Green's volume—A Treatise on Diseases of the Air-Passages, &c., appeared in 1846. My first knowledge of the work of MM. Trousseau and Belloc was derived from an analytical review of it in the *Edinburgh Medical and Surgical Journal*, for October, 1837. Taking this review as a basis, I wrote an article headed "*Laryngeal Phthisis—Consumption of the Throat—Clergyman's Sore Throat*," which was published in my *Eclectic Journal of Medicine* for December, 1837. On that occasion the means of applying caustic solutions to the larynx were described according to the directions of Trousseau and Belloc, as given in the Edinburgh Journal and derived primarily from their work. It is very evident, therefore, that apart from the knowledge of the practice obtainable from the work itself of these gentlemen which was published in Paris in 1837, tolerably full publicity must have been secured to this knowledge in Great Britain through the Edinburgh Journal, and in the United States through the Eclectic Journal, before the expiration of the year 1837. The work itself was translated by Dr. Warder, of Cincinnati, and published in "Dunglison's American Library," in the year 1839. So much for the first announcement and subsequent diffusion of the process of the French writers. I have next to add a few words on the priority of the practice in this country according to the process recommended. It would seem, as far as I can learn, that mine was the first published statement of the process recommended by Trousseau and Belloc having been carried into effect in the treatment of chronic laryngitis. It was made not formally as a matter of boast but explanatory, in these words, which occur in Lecture xii. of the additions which I made to Dr. Stokes's Lectures on the Practice of Physic, p. 668, and published in 1840.

"I have used, as more convenient, a piece of sponge sewed carefully to the end of a small-sized gum-elastic catheter with the rod in, and the end of which has the required curve given to it, so as to allow of a ready application to the opening of the larynx and borders of the epiglottis." My first trials of the practice were in 1839, and from that time to the present I have repeated it at intervals and always with benefit.

As regards the extent to which the sponge moistened with caustic can be carried down into the larynx, this must be a matter of opinion. When the instrument as we may call it, is used at all it is carried downwards and pressed on the glottis: some, with Dr. Green, may insist that it finds its way into the larynx, others, and the majority, believe that it stops at the rimæ glottidis, and that the fluid alone which is squeezed out of the sponge passes this part. The difference of opinion by the former does not constitute any valid claim for discovery.

The opinion of Dr. Bell as to the extent to which the sponge, moistened with caustic, can be carried down into the larynx, we are compelled to differ from. He says, that this "must be a matter of opinion, and that when it is used at all, it is carried downwards and pressed upon the glottis." There is no necessity of its being a matter of opinion—it is a matter of fact, and as such, is as capable of demonstration as any fact in the universe. For ourselves, we are satisfied that the passage of a piece of sponge, as directed by Dr. G., completely into, and even through the larynx, is feasible; we have done it often, and feel satisfied that any one understanding the anatomy and physiology of the parts, after acquiring a little tact, can pass the instrument into the larynx as readily as a bougie into the urethra. Does not Baron Larrey mention the case of a soldier, who received a gun-shot wound of the epiglottis, and in which he could introduce a gum elastic catheter into the larynx, and frequently the fact was only discoverable when fluid was introduced through it;* and does not this case prove clearly the possibility of the operation?

Phthisis Pulmonalis.—Six lectures, occupying about seventy-five pages are devoted to the consideration of this disease; many useful additions have been made to its pathology. The natural history of tubercle is thoroughly discussed; the works of Vogel, and Hasse, and the essays of Wright and Bennet, are freely drawn upon. The influence of climate is ably reviewed; and the symptomatology, prognosis, and treatment of phthisis may be said to have been brought up to the present state of medical science. In speaking of the benefit to be derived from a change of climate, Dr. B. remarks:

Whatever good effects are derivable from a change of climate to the phthisical patient, depend on the aid which it gives to nutrition, including, of course, hæmatosis, more than on any directly sanative, or, as some imagine, balsamic influence of the air on the lungs. This truth is beginning to be better understood, now when it is discovered, that warm southern climates are never beneficial unless digestion and healthy nutrition are maintained; and hence, also, we can now understand the seeming paradox, that some phthisical patients are benefited by a change from a warm to a cool, even although it be a somewhat inclement, climate. The general health is often better in the latter, and

* Relation Chirurg. de l'Armée d'Orient, p. 286. Also Ryland's Treatise on the Diseases and Injuries of the Larynx and Trachea, p. 240.

the patient's chances of longer life increased, provided local hyperæmia, congestions, and inflammations of the lungs be guarded against. To these the patient is more liable in cold climates; but, as it has seemed to me, he is, on the other hand, more exposed to tuberculous disease and irritation of the bowels, and consequent impediment to nutrition, in warm climates. When we speak of the latter we mean those in which not only the average temperature of the year is considerable, but also the temperature of the winter months, as in the West Indies, is relatively high. In atonic states of the system, and where the appetite is inconsiderable, digestion slow, and nutrition imperfect, I would recommend residence, even during the winter months, in northern latitudes to that in southern and warm ones,—provided that all due attention be paid to the clothing of the patient, and a uniform temperature of the air indoors through a suite of apartments, if not the whole house, be kept up. Precautions of this nature will not be found incompatible with permission to exercise on foot or in a carriage, whenever the weather is not very inclement. In this opinion I am strengthened by the observation of cases, the treatment of which, I have directed in accordance with it.

That portion of the work which relates to *diseases of the heart*, has also been recast; and to the subject of pericarditis, we observe some very important additions from the writings of Hasse, Latham, and Taylor, have been made. The researches of the first, relative to the pathological anatomy of the serous coverings of the heart, are here clearly given. Want of space compels us to pass by these valuable additions. We know of no treatise to which we can so readily refer the reader for a full and clear description of the symptoms, pathological appearances, progress, and terminations, prognosis, diagnosis, causes, and treatment of this disease, than to the two lectures here devoted to its consideration.

Several other subjects, viz.: *Meningitis*, its different forms; the *Exanthemata*, and *Fevers*, have also been recast. But we must pass by these, in order to consider more fully than we could otherwise do, those which have been for the first time introduced into the present edition of these lectures by Dr. Bell. And first in the order of the work, is *Diseases of the Blood-vessels*. All the morbid changes which the blood-vessels undergo, are not here considered but "those only which bear directly on pathology, in connection with medicine, leaving the surgical relations of them, to those within whose province they come." The most important, most practical and frequent diseased change to which the blood-vessels is liable, is that of inflammation and its consequences. Arteritis, by which we understand inflammation of an artery, although not a frequent disease, is still one which, looked upon in a pathological point of view, and as relating to its consequences, demands of the practical physician a serious and close attention. Until within a few years past, but little was known of its natural history; but since the valuable researches of P. Frank, many valuable experiments, and not a little attention has been given to it. In vindication of this, may be cited the experiments of MM. Trousseau, Pigot and Sasse; as also the practical work of Hasse. This disease is "generally coincident with, or consecutive upon the inflammation of other organs, and is sometimes a sequence of the recession of exanthematous or rheumatic affections. In regard to its extent, it may be divided into *general*

and *partial*—the former according to Hasse, is an exceedingly rare affection.

Our author in speaking of the *anatomical characters* of this disease, says,

The red color seen on opening the arteries is, for the most part, a cadaveric imbibition, and varies in its intensity, from a delicate rose hue to a scarlet and even claret color, penetrating through the inner or serous coat. It is most common in the dependent parts in the proximity to inflamed organs, and wherever, in fine, the blood most abounds. Even in parts of the vessels which are empty, the redness occasionally met with may have been caused by blood which had been carried onwards by movements imparted to the body, or by the disengagement of gas. Inflammatory redness does not, it is now well ascertained, differ from the redness resulting from cadaveric imbibition. To have any diagnostic value, it must be accompanied by other changes in the tissues, such as thickening or brittleness, or a rough or villous appearance of the internal membrane, which adheres, at the same time, more or less closely to a fibrinous clot. Coagulation of blood in the vessel is, in fact, one of the effects resulting from vascular inflammation; but we must not look for it with any uniformity. The most certain anatomical sign of phlogosis of an artery is a pseudo-membranous albuminous exudation on the inner surface of the vessel, which may even be so great as to obstruct the caliber of the smaller vessels. This exudation may take place, also, between the coats of the vessel, and particularly in the cellular sheath. It is difficult, some writers say impossible, to detect the exuded matter in inflamed arteries, because it is carried away with the stream of blood; and it has been suggested that, carried on to the capillary system, it induces changes in it, or if it get beyond this, it will effect a coagulation of the blood at some ulterior point. In some cases, changes of this nature have been observed.

The symptoms of arteritis, are acute pain felt along the course of the vessel, which beats with increased force. If it be superficial, the artery forms a kind of cord, sometimes knotted, tense and very painful on pressure. If the vessels should be obstructed by exudation or by coagulation of the blood, symptoms of an interrupted circulation set in, there is numbness, coldness of the parts to which the arteries lead, and even gangrene may come on. Should a collateral circulation take place by anastomosis above and below the seat of the disease, slight atrophy may present itself. Dr. B. remarks:

Aortitis we may suppose to be productive of symptoms of an alarming and formidable character; but the diagnosis is still imperfect. The inflammation is generally confined to the arch, and to the thoracic and abdominal portion. Intense heat, as of a raging fire in the chest and abdomen, coinciding with a small and weak pulse, or, according to some, great beating of the aorta, and dull and deep-seated pain in the course of the vessel, and finally, lipothymia, have been enumerated as symptoms of this disease. To these we must add, according to M. Bizot, the rapid supervention of œdema. When we meet with anasarca, unconnected with disease of the heart, the pericardium, and the kidneys, we may suspect inflammation of the aorta, with the production of false membranes, and concretions of blood. To the violent pulsations of the aorta, which M. Bouillaud regards as so significant, small value should be attached. We meet with these quite frequently in hypochondriacal, and in hysterical subjects. Dr. Corrigan thought that he could trace angina pectoris to inflammation of the aorta, but as we have seen, there is no fixed organic lesion connected with this disease, to which it can be said to be related as an effect. It is in aortitis more particularly that we meet with phlegmonous abscesses, studding the vessel in its length.

Secondary symptoms, which play so decided a part in phlebitis, are very seldom observed to follow arteritis. The only secondary affection of proportionate frequency in this disease is what has been termed *spontaneous gangrene*, long known by the term of senile gangrene, a name now obsolete, in consequence of its having been satisfactorily proved that the malady may affect any age, not excepting childhood. Ossification of the arteries is not the proximate, but rather the accidental, remote cause of spontaneous gangrene.

The treatment must consist in active antiphlogistic measures and posture. Should there be much fever, *free* and *repeated* bleeding should be resorted to. After which, emollient cataplasms and inunction with mercurials, may be used. Purgatives and other antiphlogistic remedies should follow the abstraction of blood.

Formation of semi-cartilaginous patches and of atheromatous deposits upon and between the arterial membranes. These two changes, says Dr. B., are for the most part associated with each other. They are of frequent occurrence, and the former occur throughout the whole of the arterial system. They probably form a semi-fluid, almost gelatinous substance of a pale yellowish or reddish color, forming a layer of more or less extent upon the inner surface of the artery. It is most abundant in the small arteries, less so in the aorta. Frequent observations have established the progressive transition, from the gelatinous layer to the semi-cartilaginous patch, proving almost beyond a doubt, the development of the latter from the former. These patches undergo but little change. They never ossify, as Andral and others have affirmed.

Atheroma is deposited by a different process. This substance originates between the internal or serous, and the middle or elastic membranes; sometimes between the fibres of the latter. In its ulterior change it destroys first the middle and then the internal membrane, leading, eventually, to the so-called ossification of the arteries. The incipient signs of this morbid process are cognisable in small, more or less sharply-defined, roundish patches, of the same yellowish white color as the artery, only of a more decided hue. The mass generated between the internal and middle coats, softens and increases in quantity, occasioning gibbous prominences on the free surface of the arteries. The morbid product is found in every degree of consistence, from that of a boiled white of egg to that of pus,—its appearance being, however, generally that of thick peas porridge. Bizot has often detected it in shining particles, like gold-dust, and Cruveilhier like cholesterine scales of certain gall-ducts. These masses, examined by Gluge under the microscope, have been recognised to be congeries of fat-globules. With the progress of softening of the morbid product there is a softening and liquefaction of the middle membrane, and subsequently, a cracking, and, ultimately, destruction, also, of the internal membrane, leaving the external tunic, and what may remain of the middle, to hold and transmit the blood.

The substance deposited between the internal and middle membranes may, however, undergo, instead of softening, the opposite process, namely, that termed ossification. It is not uncommon, indeed, for a vessel to exhibit, in different parts, the two processes of softening and ossification. The latter mostly assumes the form of thin and very brittle layers of a pale yellow color. The internal membrane passes over them unchanged; sometimes, however, it disappears, so that the stream of blood comes into immediate contact with the bony plate. This enlarges at the expense of the middle membrane, whose fibres become compressed, more and more attenuated, dried, and atrophic; or else soften and waste away, owing to a semi-fluid atheromatous mass

deposited beneath the ossification. The bony scales, although in general adherent to the arterial membranes, sometimes crack and tear at the centre, favoring an ulcerous disposition of the parts, and projecting, in their partially-loosened state, into the cavity of the vessels. Valentin has shown, from microscopical examination, that the so-called ossifications differ essentially from true bony substance. He terms them calcareous deposits. In rare instances, the atheromatous mass is reduced by absorption, and the ulcers heal. Atheromatous deposits occur in the small vessels as well as in the larger: but the several types of the disease, hitherto described, are found chiefly in the posterior surface of the aorta, and the ulcers, almost exclusively, in the abdominal aorta.

A remarkable observation has been made by Bizot, viz., of the *symmetrical* occurrence of arterial disease as an absolute law. Thus, the same morbid changes are wont to develop themselves in the corresponding arteries of both halves of the body at the same point, and in equal degree and extent.

Sex appears to exert but little, but *age* a decided influence upon this affection. As this deposit "is most frequent in the smaller arteries of the leg, brain and heart, we are prepared to see, with the increase of the disease, an obstruction of the canals, gangrene of the lower extremities, certain forms of cerebral softening, and atrophy of the substance of the heart."

Aneurism of the Aorta being one of the most interesting in a medical point of view, receives from our author a notice. The diagnosis of its diseased state are doubly valuable to the physician; "first, by enabling him to ascertain the presence of a formidable malady, and thus to direct remedial measures, which, though they be of a negative character, may prolong life; and secondly, by preventing needless, if not hurtful therapeia, under a notion of the morbid phenomena being the result of an affection of some other part—the lungs, heart, digestive organs, and even the brain." A very interesting paper entitled "*Researches on the Symptoms and Diagnosis of the Diseases of the Aorta*, by George Green, M. D., edited by Dr. Gordon, was published in the Dublin Quarterly Journal of Medical Sciences, for July, 1846, from which Dr. B. gives a very extended and careful analysis, and fearing that the reader may not have read it in detail, we quote our author's review.

We may mention in advance that the most frequent seat of aneurism of the aorta is in the thoracic portion and in the aorta ascendens near the arch. That of the abdominal portion is usually near the cœliac branch. It cannot be denied that many aortic aneurisms, though of considerable size, remain latent, as far as symptoms are concerned, until at the very moment of rupture and sudden extinction of life.

In proceeding to a review of the symptoms, we begin with some external appearances. In aneurism of the arch, we meet in many instances (eight out of twelve) with a peculiar knotty or congested state of the veins, either of one or both upper extremities, or of the superficial veins of the chest, appearances indicative of pressure on some internal vascular trunk. In some cases the veins were so turgid as to resemble hard cords, and pressure did not obliterate them. The color was in general blue, but in one case it had assumed a darker or purplish hue. Bleeding did not notably diminish the tension of these veins, and the flow of blood from them was not always readily stopped. The stasis of blood has been found to be so great in some cases that its temperature has sensibly diminished, and a separation of the fibrine has taken place

during life within the vessels. The movements of the thoracic parietes undergo important modifications in cases of intra-thoracic tumor, as in aneurism of the arch of the aorta. The phenomenon most usually observed is non-expansion of one side of the chest, in ordinary or during forced inspiration; and depends on pressure on the corresponding bronchia. When the trachea itself is compressed, and when the sac is large, the upper third of the entire chest exhibits a comparative immobility in the act of respiration, and abdominal respiration is strongly marked during the paroxysms of dyspnœa. A feature of an opposite nature attends the disease, viz., an abnormal movement which, though sometimes very slight, can be discovered very early in the disease. It consists of a diffused expansive motion perceptible under the upper portion of the sternum, or above or below the clavicles: it is sometimes accompanied by a distant shock or impulse. This symptom may be made more evident by making the patient walk for a short time, so as moderately to excite the circulation without rendering the respiration tumultuous; and then when he stands and holds his breath, to run the eye across the infra and supra-clavicular regions, and over the superior portions of the sternum. A forward movement, arising from a force in the interior distinct from that of the heart, is then clearly perceived.

Serous infiltration of one of the upper extremities frequently follows the pressure of aneurismal tumor, and appears after the turgescent state of the veins has existed for some time. The same appearance may exist in both upper extremities, and even in the lower, when the disease has lasted a long time, or when the sac is large, and the constitutional disturbance severe. As anasarca also ensues in valvular disease, the safest general rule is, that in valvular disease partial anasarca is rare, and in aneurism common. Except in the pericardium there are seldom serous effusions into the serous cavities. Coma from effusion into the ventricles of the brain is not uncommon, however, in aneurisms of the arch.

The general *symptoms* are, first, dyspnœa. This exists in greater or less severity, in all the cases. It comes on gradually, is progressively increased, and finally ends in orthopnœa. It is chiefly at night, that the patient is roused from sleep, in all the terrors of impending suffocation. Lying on the back either induces a paroxysm, or increases its violence. Even attempts at deglutition will sometimes bring on a paroxysm. The dyspnœa seems to be independent of atmospherical changes; and in the duration of its attack, does not exceed a period of two hours. A stridulous sound heard during inspiration, occurred in eight of the twelve cases, analyzed by Dr. Greene, sometimes in ordinary but more frequently during forced respiration. The inspiration is prolonged, and the sound generally raucous and deep-toned. The difficulty of breathing is mostly referred to the inferior part of the trachea. Both dyspnœa and stridulous breathing diminish in intensity, after free venesection, or spontaneous hemorrhage, if the patient survive it. The voice was modified in six cases: its general character was that of hoarseness, but it was occasionally shrill, clangose, whispering and interrupted. Dr. Greene never saw aphonia from an aneurism of the arch. The causes of these various modifications of voice, may be arranged under the heads of alteration in the capacity or torsion of the air-tubes, compression or ob iteration of the recurrent nerves, and œdema of the glottis. Cough was present in all the twelve cases, and very similar in character in each, viz., loud, ringing, paroxysmal, and occasionally dry. The paroxysm varies in duration; it is generally long and suffocative. In many cases the cough and dyspnœa appeared simultaneously, and the former remained for a considerable time harsh and dry.

The nature and severity of the pain complained of varied considerably. In most instances, however, it is that kind, which is indicative of irritation of the nerves; and as such, it is lancinating, burning or terrebrating; at times appearing to originate in the centre of the chest, and to radiate towards the circumference, at others, to shoot along the trachea, and neck, or towards the shoulders

and upper extremities; in some cases it is accompanied by painful palpitations of the heart, and a sense of constriction about the chest; but not by any prominent acceleration of pulse, or other symptoms of fever. This pain is intermittent, is independent of atmospherical changes, and is much relieved by anodynes, especially belladonna, exhibited both internally and externally. There would appear to be a connection between this pain, and some irritation at the roots of the sensitive nerves of the spinal cord: and this last again may, in some cases at any rate, be referred to erosion of the vertebræ, by pressure of the aneurismal sac. In several of the cases, pain of a decidedly inflammatory character made its appearance, and was accompanied by hardness and acceleration of the pulse, with thirst, and other symptoms of fever, which cupping and bleeding relieved. This was caused by an intercurrent pleurisy, or pneumonia, as was obvious from the stitch complained of in the side, and the existence of crepitus in the lung. In nine out of twelve cases, dysphagia existed, and it may be regarded as one of the concomitant symptoms of aneurism of the arch of the aorta. The dysphagia is subject to variation, being more marked in one day than another; it may also disappear altogether before death.

The phenomena exhibited by the pulse are: 1. Weakness of the pulse is one or both wrists, in comparison with the impulse of the heart; 2. The pulse at the wrist later than the impulse of the heart; 3. Absence of the pulse; 4. Visible pulsation of the radial artery. A strongly-marked visible pulsation in the radial artery was observed by Dr. Greene in his eleventh case, but the aortic orifice was patulous. Dr. Corrigan has shown the value of this symptom in the lesion last named.

The following is the order of frequency of the general symptoms observed in Dr. Greene's cases, viz., dyspnœa and orthopnœa, paroxysmal cough, terebrating pains, dysphagia, modifications in the pulse, and modifications in the voice.

If recourse be had to a study of the physical signs for diagnosis, we discover, on percussion, a dull sound more or less strongly marked under the upper half of the sternum, or at either side of that bone, and the production of pain by this act; on auscultation, a bellows sound is heard over the aneurismal sac, or at the upper third of the sternum, even in cases in which there was no complication of valvular disease of the heart. The interposition of a small portion of the lung, between the sac and the parietes of the chest, will interfere with the results of percussion, particularly if the lung be emphysematous, when an abnormal clear sound will be produced. In cases where the bellows sound was soft, the opening of the sac was smooth and round, and where a rasping sound existed, apparently in the situation of the sac, the valves of the heart were diseased and rigid, and the aorta contained morbid deposits. The common respiratory murmur is lost when the tumor reaches the sternum. The hand placed over this bone receives also the shock of the impulse communicated by the beating of the aneurismal tumor.

The attitude of the patient laboring under aortic aneurism is often peculiar. He is seated in bed or on a chair with his body bent forwards. I have witnessed a case of this kind in which the patient could not take any other posture. It is true that he referred all his agonizing pains, under which he suffered, to his abdomen. After death we found large coagula of blood that had come from ruptures of the thoracic aorta, and found their way down between the crura of the diaphragm into the cavity of the peritoneum, and filled almost the left iliac region. It is worthy of notice, however, that precisely the same symptoms,—attitude and pain, with obstinate constipation, had been experienced by this patient twenty months before. From all these he was relieved by what I deemed an appropriate treatment; but without any suspicion of his having aortic aneurism. The sac was adherent to the ninth and tenth dorsal vertebræ, which were denuded, and in part removed by absorption.

Treatment.—Cures have been spoken of, three cases are reported by MM. Dusal and Legroux. Large and repeated abstractions of blood have been recommended; but as Dr. Hope has remarked, these only tend to increase the rapidity of the circulation and violence of the pulsations. Small and repeated bleedings, conjoined with mild purgatives to act upon the bowels, will be more prudent, while the action of the heart may be still farther kept down, and the tendency towards the formation of coagula increased by the administration of digitalis, or acetate of lead, in doses from two to three grains every few hours, may be given. Dupuytren gave it to the extent of a drachm in the course of the day. Goulard's extract, by means of soft compresses wet, may be kept to the joint when convenient. A restricted regimen, and repose of both body and mind, and a moderate use of the most simple drinks, should be enjoined. Should anæmia develop itself, during treatment, which we must endeavor to keep clear of, owing to the irritable circulation which always accompanies it, an analeptic regimen and the moderate use of chalybeates may be advised.

Heterologous Formations in the Arteries.—No well-authenticated example of this is known. "It is otherwise with the veins, which, though alike exempt from tubercle and atheroma, are obnoxious in various ways to fungous growths."

Phlebitis.—There is probably no subject which so clearly evinces the aid which the study of pathological anatomy has rendered to the science and art of medicine than this. By it many obscure points in the phenomena of disease have been fully elucidated, or at least rendered comprehensible. As instances, we might refer to the so-called malignant intermittents consequent upon injuries and surgical operations, to certain typhoid conditions, puerperal diseases and the like. Hasse remarks, "that the veins, owing probably to their double function as vessels of return and of absorption, as also the protracted sojourn of their contents at any one point, are more prone to inflammation than any other system of vessels." The following description of the anatomical changes in an inflamed vein, which Dr. B. has principally condensed from Hasse's work, we quote:

The study of phlebitis resolves itself into two heads; the one restricted to the consideration of the purely local, primary phenomena, the other to the general, secondary consequences, diffused throughout the whole system. First, let us observe the *anatomical changes* in an inflamed vein. It is reddened internally and externally; and as the disease gains ground, the parts become irregularly spotted, marbled, occasionally streaked, and, at length, display every variety of shade, from the natural color to a dirty violet, on the one hand, to a deep scarlet, on the other. There is incipient infiltration of a faint-red serous fluid, together with a dense net-work of delicate little vessels. The coat of the vessel is thicker than common: it is rough and unequal; and it is lined by a fibrinous deposit, constituting a false membrane, at first connected with the internal membrane of the vein by means of a tenacious mucus-like substance, which, afterwards, is replaced by adherent cellular tissue. These fibrinous deposits may go on increasing so as to fill up entirely the venous canal. With this formation there ensues a loss of smoothness and polish in the internal membrane, which assumes a dull, velvety, or slightly puckered appearance. The external membrane, at the same time, appears

thickened and turgid, and soon becomes adherent to the cellular tissue, which in its turn has become firmer and paler from the effusion of plastic lymph. Both membranes are now easily torn. In this state of things the vein, when cut asunder, does not collapse, even after the plug of deposited fibrinous matter or coagulated blood has been removed, but remains open like an artery.

If the disease continues, so that suppurative phlebitis has set in, the plug becomes softer, especially towards its middle; it assumes a grayish, yellowish-white, dotted appearance, and finally, exhibits a straw color, and a semi-fluid consistence; and is, finally, resolved into pus, which is usually confined within a fibrinous layer more or less thin, and rarely found loose within the vein. But the contents of the vein being unceasingly propelled towards the heart, the more or less solid products are necessarily conveyed beyond the original site of inflammation. An obstacle to the product of inflammation passing along with the venous current is derived from the tendency of pus when mingling with the blood to cause its coagulation; and hence, the pus becomes isolated by the coagulation of blood, both above and below the place of its formation, and is thus cut off from the remainder of the blood. Cruveilhier calls this the sequestration of veins. The pus, under these circumstances, may be gradually removed by the process of absorption, the vein becoming, in the mean time, obliterated; or it may make for itself an outlet through the parietes of the vein. These abscesses, varying in size and number according to the amount of inflammation, form beneath the skin, or between the muscles, and the patient is thus protected against the dangerous consequences of a general infection of the circulatory fluid. The membranes of the veins are all changed at this time: their color is a grayish-white; they become softened and thickened; are no longer to be distinguished from one another; and they form, in conjunction with the surrounding textures, a nearly uniform membranous layer, of a lardaceous aspect and character.

It is a question still unsettled, whether the pus found in the veins be the result of secretion from the inflamed surfaces, or of direct metamorphosis of the blood itself. Experiments, microscopical examinations, and analogy, have been pressed in favor of each of the two sides of the question; these I shall not repeat here. Gulliver maintains that the puriform fluid in veins contains no pus-globules, but consists merely of liquefied fibrin.

Phlebitis varies in its extent; sometimes extending the whole length of a vein, sometimes only an inch or two inches: it may be even restricted to one side of the vessel.

In speaking of the *progress* and *terminations* of phlebitis, the following, which is also condensed from the same authority, occurs.

Organic changes in the capillary system constitute a most important sequel to phlebitis. These have been designated by the appellations of "lobular inflammations" and "lobular abscesses;" and they are of most frequent occurrence in the lungs and in the liver. Peritonitis is an exception to the little proneness of serous membranes to this puriform effusion.

Pathologists have been divided in opinion as to whether the pus formed in the veins at the part originally inflamed, be substantively transmitted through the medium of the circulating current to the lungs, the liver &c., to accumulate within certain points of the latter; or whether it be actually generated in the parenchyma of these organs. The latter view is now the prevalent one, but in a modified shape, which does not exclude the primary agency of pus formed in an inflamed vein, and serving as a cause of stagnation, and an exciter, as it were, of purulent formations in distant organs. The explanation of what does occur is in this fashion. The pus is conveyed in substance by the veins to the heart, and forwarded thence; but those pus-globules which have reached the capillaries of the lungs in their entire state, are unable, from

their size, to permeate the latter organs. These globules now become a central point of stagnation, and finally, of extravasation, in the adjacent branches of the pulmonary artery, and thus determine, eventually, local inflammation and suppuration. In like manner are accounted for, abscesses of the liver, in consequence of inflammation within the tract of the portal system.

The principal physical causes which develop phlebitis proceed from wounds or laceration of veins, frequently from puncture with a rusty or unclean instrument; it not unfrequently occurs after great surgical operations, "and whenever there is extensive suppuration in the neighborhood of veins that remain patulous when opened or wounded."

The symptoms of phlebitis in its formative stage, are much the same as are present in arteritis. Soon, however, œdema proportionate to the interruption of the circulation sets in, afterwards, general uneasiness, headache, want of appetite, thirst and febrile re-action, which may be either continued or remittent. After a few days, when the blood has become altered by the purulent matter, new symptoms arise, which constitute the second period of the disease, or that of *infection.*

The patient now experiences chills at irregular intervals, but sometimes recurring periodically, and followed by a dry and hot skin and often copious sweats: he is agitated, tormented by fantastic imagery; his ideas are somewhat confused, and at last continued delirium sets in. The face is shrunk, pale or of an earthy hue, and yellow; the features indicate apathy and loss of intellect; the eyes are encircled with a blue streak; the tongue is dry and dark and trembling; there is often a fœtid diarrhœa; the pulse is small and weak, and the strength entirely gone. In this period we see break out in different parts of the body, such as the cellular tissue, or in the thickness of the muscles, those abscesses already spoken of. In some, jaundice supervenes, and coincides with lobular abscesses of the liver. Others complain grievously of violent terebrating pains in the joints, which are now most generally filled with pus, while, again, others are attacked with acute pleurisy, or are taken with a dry cough, oppression, and dyspnœa; symptoms referable to the formation of lobular abscess in the lungs. Under an aggravation of the disease by these lesions, the patient sinks at the end of the third week. If the issue is to be favorable, there is a gradual diminution of the local and general symptoms before the coming on of the period of infection.

Under the varieties of phlebitis, our author mentions *Uterine* or *Puerperal Phlebitis, Phlebitis of the Cerebral Sinuses* and *Crural Phlebitis* or *Phlegmasiæ Alba Dolens.* In the description of the last variety he follows closely the writings of Dr. R. Lee on Puerperal Fever and Crural Phlebitis. The treatment of phlebitis must be conducted on the same general principles laid down in treating of arteritis. In cases where the disease has followed bleeding, Dr. Physick, and since his recommendation of it, many American physicians have found great service from the use of blisters, applied directly over the inflamed vein. Compression of the vein beyond the limits of the inflammation on the side towards the heart, so as to cause adhesion of its walls, or the formation of a coagulum has been successful in a number of cases. When, however, the anostomozing veins, producing a free collateral circulation, is great, this cannot succeed. When the inflammation has subsided in a measure or en-

tirely, and there remains œdema of the limb, stimulating embrocations and bandages will be indicated. A lecture consisting of fifteen pages is devoted to the consideration of the pathology of dropsy in general—this lecture is for the first time introduced into this edition. Dr. Bell premises by saying, "That the pathology of serous effusions in different regions of the body, constituting what is designated by the term dropsy, resolves itself into that of organs, heart, kidney, or liver, or of the membranes, pleura, pericardium, peritoneum, or arachnoid, on the lesions of which the serous effusions depend. If we connect this proposition with that of an altered composition of the blood, we have the key to the pathology of dropsy." After some general remarks on the definition of dropsy in general, and in particular as relates to cavities and parts, he remarks that the division of dropsy into idiopathic and symptomatic is more speculative than real, since there is reason to believe that all the forms of dropsy are consecutive on a lesion of some organ and interruption to the circulation, particularly the free return of blood by the veins. Even when the cause seems to be, and in fact is, a change in the composition of the blood, which so far would indicate primary general disorder, it will be found, notwithstanding, in most instances, that this change in the blood is itself the result of some antecedent organic lesion, as of the kidneys for example. A disproportion between the secretion or exhalation and the absorption of serous fluid has been assigned as the more direct cause of dropsy, by which either the secretion has been excessive and the absorption normal, or the latter less than usual, while the former is in a customary proportion. The first state, or that of hypersecretion, without corresponding activity of absorption, has been called active dropsy: the latter, or of feeble and defective absorption with normal, but still, under the circumstances, disproportioned secretion, has been termed passive dropsy. Nearly similar meanings have been attached to the division of dropsy into sthenic and asthenic. There is, however, this additional consideration, that in active or sthenic dropsy, we expect to find the disease accompanied by symptoms of excitement and re-action, and to run its course rapidly; and to show itself in comparatively robust and sanguine subjects—the whole evincing a secretory irritation or sub-inflammation. Asthenic or passive dropsy, on the other hand, resulting immediately from deficient absorption, pursues a slower course, and is not associated with symptoms of excitement or re-action; dropsy from obstruction to the free return of the blood by the veins is adduced as a specimen of the passive variety; and that following increased arterial action as one of the active variety. Without formally admitting these divisions, says Dr. Bell, we shall find it useful, in practice, to be aware of the modifications in dropsy, produced by a general excitement, or depression, or by accompanying phlogosis, or congestion, as the case may be.

Causes of Dropsy.—As will be perceived by what has just been said, our author admits of two chief causes of this disease; first, retarded or interrupted circulation of blood in the veins, and, second, an altered composition of the blood, especially by a diminution of

its albumen: he says, often we meet with serous effusions, the direct result of inflammation, as in the application of cantharides, or severe heat to the skin; and also in the more common pathological conditions of the membranes in pleuritis, pericarditis and peritonitis. And even in the cellular tissue, when inflamed, there is some serous effusion, but the secretion of serum, in these cases, is part of the series of phenonema of inflammation itself, and if such secretion were only found coupled with phlogosis, there would be no occasion for speaking of dropsy apart from its cause and antecedent, as well as its accompaniments, such as the effusion of coagulable lymph, and the formation of false membranes.

There is, however, a state of the general circulation, and of particular organs and membranes, short of inflammation, but yet far from atony, that would allow of mere transudation, by which, after copious secretions or effusion of serous fluids takes place, so as to constitute the deposition and swelling known by the term dropsy. Dr. Bell here goes on to prove the truth of the proposition contained in the foregoing analysis, but the length necessitates us to refer the reader to the work itself for the arguments.

Pathology of Dropsy.—In speaking of this he adopts the classification of Vogel in his late work, as will be seen by the following analysis which he gives:

The *anatomical characters* of dropsy, separated from those of the organs on the lesion of which it so often depends, consists almost entirely of the appearances of the fluid effused. There are varieties which would almost constitute divisions, depending on differences in this fluid under different circumstances of cause and seat, that merit notice. Dropsical fluids are divided by Vogel into—1. *Serous* dropsy, in which the fluid is identical in its qualitative chemical composition with the serum of the blood. 2. *Fibrinous* dropsy, in which the fluid contains dissolved fibrine, and in its chemical composition resembles the plasma of the blood. 3. *False* dropsy (*hydrops spurius*), in which the fluid differs essentially in its chemical composition from either of the preceding forms. Blood and pus, &c., are frequently mixed with dropsical fluids. 1. Of these divisions *serous* dropsy is by far the most common: it resembles closely the serum of the blood. "A pure dropsical fluid is generally nearly clear, limpid or colorless; or, it may be of a yellowish-green tint, more or less turbid, opalescent, and whey-like." Its yellow or yellowish green hue is caused by the presence of bile-pigment: as a red one is dependent on hæmatine, a milk-white turbidity on the admixture of fat or epithelium scales, or of albumen, if the fluid be very aqueous. A large quantity of albumen renders its viscid, a very large quantity renders it thick, tenacious, and capable of being drawn out in threads, like albumen itself. Its alkaline re-action, like that of the blood, seems to be due to alkaline carbonates or basic phosphates. An acid re-action is rare, but sometimes occurs in dropsy after miliary fever and acute rheumatism. "Under the microscope, the effused serum appears as a pure fluid: it frequently, however, contains a small amount of corpuscles, which on standing form a more or less abundant sediment. This sediment may possess various properties, and be dependent on very different modes of origin. It may contain fragments of epithelium from the serous surface, accidentally mixed with the fluid pus-corpuscles from secondary suppuration, blood-corpuscles accidentally present, or finally, but rarely, an actual deposition of inorganic matter the fluid of hydrocele frequently contains a crystalline deposit of cholesterine." The chemical constituents of the effused serum vary in their amount, but are identical with those of the serum of the blood. They consist of water, organic

substances, especially dissolved albumen (1 to 58 parts in 1000), fat and extractive matters, sometimes also small quantities of urea, bile-pigment and hæmatine, and various salts, chiefly alkaline and earthy carbonates and phosphates, and chlorides. In three cases of dropsy, Marchand found 4·2, 6·8, and 5 parts of urea in 1000 parts of fluid. In other cases again this substance is entirely wanting or in exceedingly minute and barely-appreciable quantity. Of the salts, chloride of soda is usually the predominating ingredient. The fluid formed in the bullous exanthemata and in the vesicles resulting from burns and the action of cantharides, and in gangrene, is identical in its chemical composition with the fluid of serous dropsy. A curious and inexplicable fact is mentioned by M. Andral, viz.: that the proportion of albumen varies, in the same subject, in the effused fluid found in different regions of the body.

2. *Fibrinous* dropsy, as implied in its title, is distinguished by the effused fluid containing fibrine in a state of solution. Like serous dropsy, it may form either in serous cavities or collect in the parenchyma of organs, either by infiltration or by filling recently-formed cavities in them, as, for instance, in the substance of the brain. Examined immediately on its discharge, this fluid resembles, in all points, that of serous dropsy. But, some time after its discharge it coagulates in consequence of holding fibrine in solution, and forms a homogeneous tremulous jelly, which, after standing for some time, separates into a partially-consistent, colorless, or yellowish-red clot of coagulated fibrine, and a clear yellowish fluid analogous to the serum of the blood. On washing the clot with water, and pressing it between folds of fine linen, we obtain a small quantity of tolerably firm, stringy fibrine, precisely similar to that which may be obtained from fresh blood by stirring and thoroughly washing. The coagulation of the fibrine sometimes takes place in the body during life. In its chemical composition this fluid is found to consist of serum with the addition of dissolved fibrine, and as consisting of serum it has of course albumen in its composition, but albumen in reduced proportion such as presents itself in serous dropsy. It is almost identical with the blood, wanting its corpuscles.

As serous dropsy may be supposed to be dependent, in its ultimate formation on the transudation of serum through the walls of the veins, so may fibrinous dropsy be admitted to come from a dilatation of the capillary vessels and a tension and attenuation of their walls. The causes in the former are frequently mechanical, those in the latter dynamical and connected with particular changes in the nervous system. A slight modification of the discharge of the fibrinous fluid of dropsy will be followed by the formation of false membranes, and hence the co-existence so often of these latter with dropsical effusions. The fibrinous effusion is the most common occurrence after pleuritis or pericarditis; and occurs, but rarely, after peritonitis succeeding paracentesis.

3. *False* dropsies are those in which, instead of a morbid serous effusion on the serous surfaces or in the cellular tissue, there is merely an accumulation of the fluid habitually secreted by the organs, and retention of it in its cavity by obstruction of their excretory ducts. Of this kind are *hydro-nephrosis* or *hydrops renum*, dropsy of the kidneys, *hydro-metra*, dropsy of the uterus: also dropsy of the Fallopian tubes, of the gall-bladder, of the appendix vermiformis, of the cæcum, and of the lachrymal sac. The fluid in this form of dropsy is therefore identical, at first, with the secretions which have thus given rise to the tumor, or enlargement of the organ. In the kidneys it is the urine, in the intestines, uterus and Fallopian tubes it is a product of the secretion of the mucous membrane, &c. The secretion, if retained for a length of time, may undergo certain changes; and hence, for example, the fluid of the dropsy of the kidneys is not always identical with normal urine.

Symptoms of Dropsy.—A very perfect sketch of the symptoms is detailed, but we can only refer to those which relate to the urine. These should be studied with great attention, not so much indeed to aid us in determining the existence of dropsy, which, as a general

rule, is not difficult, but in order to detect the particular organic lesion giving rise to the effusion. For, says Dr. B.:—

When albumen is found in the urine, it is assumed to be an evidence of renal affection—congestion, if not granular deposit in the kidneys. But, although we may have good reason for fearing this state of things when albumen is continually present and abundant in the urine, yet it is not invariably so. Under a considerable variety of circumstances, particularly of febrile excitement and temporary irritation of the kidneys, albumen is found in the urine. It is also met with at the crisis of a number of acute diseases, viz.: intermittent fever, typhoid fever, measles, smallpox, scarlet fever and pleuropneumonia, as noticed by M. Martin-Solin.

What is said of the albumen will apply with still more force to the presence of other substances in dropsical urine. It would be impossible, were we restricted to an inspection and analysis of this fluid, and prevented from seeing the patient, to infer positively that he was suffering under dropsy. We might, from this partial evidence, make some approach to a diagnosis of certain organic affections, particularly of the liver or of the kidneys, and in degree of the heart also, but without our being able to affirm that serous effusion was an accompaniment at the time. Simon, although he tells us, that, during dropsical affections, the urine differs considerably from its normal state; its quantity being generally less than in health, and that it presents various peculiarities in quality—yet he fails to furnish us with the proofs of this assertion. If, in dropsy, it is sometimes dark, very acrid, rich in uric acid, and, according to Schönlein, in urea also, and sometimes contains blood, it exhibits these properties, also, in inflammatory affections; so likewise if pale and opalescent, we find these characters in anæmia unconnected with dropsy. In chronic hydrothorax, a thick fiery red urine is generally passed, which speedily deposits a considerable sediment of a brick-dust or rust-red color—an appearance and deposit met with in many diseases in which there is a predominance of uric acid and urate of ammonia. In these varieties of ascites arising from affections of the liver the urine resembles that which is excreted in hepatic disease without effusion, as where it is diminished in quantity and is of a dark-red or brown color, sometimes without deposits, and at other times throwing down copious lateritious or fawn-colored sediment.

Treatment of Dropsy.—The first indication in the treatment of dropsy is to remove the cause, the second to promote an absorption and subsequent excretion of the effused fluid. The fulfilment of the first, however, is frequently beyond our control. And the most that we can do is to mitigate its force or prevent its increase, as in cases of valvular disease, or hypertrophy of the heart. When the liver is chronically affected, or the kidneys become the seat of albuminaria, remedies addressed to these organs promise better results. There is often a vicious circle in dropsy, when it is dependent primarily on organic lesion, which we find a difficulty in breaking in on. The affected organ, the heart, for example, prevents the regular transmission of the blood from the auricles to the ventricles, and there ensues venous accumulation and congestion; which again in its turn oppresses still more the heart and impedes, in an increased degree, its propelling power. In this instance, we have a double indication to fulfil; the first, to remove the venous congestion in order to relieve the oppressed heart; and the second is to remove the distention accompanying the congestion of the veins, in order to diminish and arrest the effusion which constitutes the dropsy; in doing this, we meet also happily the second of the two chief indications for the

treatment of dropsy, viz.: to promote the absorption of the effused fluid; and this will be best effected by a resort to blood-letting. We must, however, bear in mind that this is only temporary; this temporary relief affording time for a resort to such remedies as act directly upon the kidneys, skin, and intestines. In order to derive salutary effects from the use of diuretics, says Dr. Bell, we must place, as nearly as possible, the kidneys in a physiological condition. And before administering remedies, remove existing congestions of these organs, or if granular disease be present, address ourselves to a mitigation, if not removal of this morbid state, by other means, used conjointly with diuretics. Recourse to the latter will be preceded by blood-letting or cupping the loins, calomel, and antimony. If we encounter difficulty in restoring the kidneys to their normal condition, or in the process of doing so itself, we ought to relieve the veins by free purging, the extent of which, and the selection of articles to procure it, must be regulated by the state of the gastro-enteric mucous membrane. Should it be free from any marked difficulty, drastic purgatives may be freely and frequently administered. In atonic dropsy, and in the more advanced stages of the disease, when the circulation is languid, great benefit may be derived from the use of the warm and vapor bath and diaphoretics, than from any other mode of treatment. The following quotation, in a few words, contains a good summary of the treatment in general, as recommended by Dr. B.

While general or local polyæmia, as the case may be, and venous congestion are relieved by depletion, and the dependent dropsy thereby mitigated or removed, it must be remembered that their recurrence will be prevented by an increase in the tone of the vessels and heart itself; and that hence, after blood-letting, and while purging and causing increased diuresis—bitters, tonics and narcotics are not only admissible but decidedly beneficial. More especially is this course required in dropsy complicated with intermittent fevers, anæmia, chlorosis, or resulting from hemorrhage. In every period of dropsical effusion and in every modification of treatment, the primary lesion of the suffering organ must be continually watched. We may, while acting on the intestinal mucous surface, or on the kidneys, or on the skin, in succession or alternation, with a view of procuring the absorption and discharge of the effused fluid, sometimes carry on concurrently a treatment adapted to restoration of the organ to its customary state, or at least a notable mitigation of its lesion. Thus, for instance, in ascites depending on liver disease, mercury and iodine may be usefully administered; in anasarca resulting from hypertrophy of the heart, or following chronic endocarditis, small bleedings, digitalis and iodine will serve a good purpose. Dropsy connected with diseased kidneys will point to local bloodletting from the lumbar region, and in atonic states of the system with cold skin and feeble circulation, to the application of a large blister to the same part.

Some very valuable observations follow on the particular treatment of dropsy, dependent upon valvular disease of the heart, but our space will not permit a notice.

Diseases of the Eye—consisting of three lectures, comprising thirty-six pages, next claims our attention. The lectures are introduced into this edition for the first time. They treat only of the inflammatory diseases of the eye; the description of fixed structural

lesions, with their treatment by operations, belongs to the province of surgery proper. Many of the most important of these cases are, however, (remarks Dr. B.) the result of inflammation, and too often attest the want of skill of the physician in failing to arrest the disorganizing process, fully as much as any extraordinary violence of the cause. The practice which has for some time past been so fashionable, viz.: of making a specialty of the diseases of the eye, Dr. B. declaims against as contrary to the instructions furnished by a knowledge of the pathology of tissues, and also as detracting from the reputation and usefulness of the general practitioner. The truth of these remarks, few, if any, will question. For, says Dr. Bell, it is obvious enough, after a very slight survey of the premises furnished by general and morbid anatomy, and by physiology and pathology, that the study of the most important and greater number of the diseases of the eye cannot be resolved into mere ophthalmic surgery, in the narrow and arbitrary sense in which this is generally understood, viz.: readiness and dexterity in the use of instruments, or as it is generally termed, performance of operations, and recourse to certain local applications conventional or of empirical repute. Unless a man by the extent and accuracy of his knowledge of pathology and therapeutics, be fitted to assume the management of diseases in general, and especially of the phlegmasiæ, he ought not to presume to treat diseases of the eye and its inflammations, whatever may be the dexterity of his manipulations, or in the use of cataract knife or needle. No part of the practice of medicine can be thus resolved into a branch of mechanical skill. What should we say of a man's competency, and not only competency, but superior claims, to treat peritoneal inflammation and ascites, because he could perform readily the operation of *paracentesis abdominalis*, or of anasarca on the strength of his being able to apply neatly a bandage? It behooves the general practitioner, and most men in the United States are of this class, to check the continual tendency in the community to take out of his hands the treatment of the diseases of a particular organ,—the eye or the ear, it may be even the lungs, or the uterus—and assign it to some specialist, who is too apt to forget that his favorite organ has both structural and vital connections with other organs, and that it acts on them and is impressed in its turn by them in a manner and through causes, hygienic and medical, of a wider range than comes within the scope of his mental vision. The remarks of Mr. Travers on this same subject we cannot refrain from copying here—they amply illustrate the decided objection which has, and still continues to exist, to these specialties. In the preface to his very valuable *Synopsis of the Diseases of the Eye*, &c., he says: "I have always thought that the advantages obtained by the subdivision of professional talent and labor, are infinitely overbalanced by those which arise from the general and undivided application of those instruments of knowledge. No fact more strikingly illustrates the truth of the doctrine, that the confinement of any branch of the profession to the hands of a few, operates prejudicially to science, than

the state of the profession in this country, concerning the diseases of the eye.

Among the inflammatory diseases to which the eye is subject, there is perhaps no one, which so often tests the skill of the physician as that of iritis. In some one of its forms, it is not an uncommon disease, and when present, demands of the physician a close attention, both in regard to a correct diagnosis, (which generally is not difficult,) and a careful, judicious and successful treatment. The following remarks on inflammation of the iris, will convey a tolerably good idea, of the clear and distinct manner with which Dr. Bell speaks of the remaining affections of the eye treated of in this edition.

IRITIS—*Inflammation of the Iris.*—A knowledge of the structure of the iris, coming as it does under the head of the erectile tissues, and of course being very vascular and nervous, would prepare us for a discovery of its frequent lesions and functional disorders. Iritis may be either primary or secondary. In the latter case it follows inflammation of the tunics of the eye, as of the conjunctiva, sclerotica, cornea, choroid and retina. This inflammation has a great tendency to an effusion of coagulable lymph and to the formation of adhesions of the iris, particularly of its pupilary margin. It is acute or chronic in its stages and duration, and exhibits numerous varieties depending on constitutional diathesis or taint.

Symptoms and progress.—Acute iritis occurring in persons of a full habit and sanguine temperament, has run its course with such rapidity as to destroy vision in a few days. In other cases it is slower in its progress, not seriously impairing vision until after the lapse of many weeks. These have been termed sub-acute. In a third class again, the chronic, the inflammation is so slow and productive of so little inconvenience to the patient, as hardly to excite attention until decided functional obstruction occurs.

The symptoms of acute iritis are a dull pain or sensation of fulness, accompanied with pricking of various degrees of intensity, slight photophobia and confused vision, contraction and diminished mobility of the pupil, which is fixed and of a dark color. But the most characteristic symptoms of iritis are, a general change in the appearance of the iris, beginning at its inner or pupilary margin, and redness of the white of the eye, in the form of a red circle or band round the cornea. With a reddish or or rusty-brown discoloration of the inner circle, there is, also, thickening of the pupilary border. "A light-colored iris assumes, under inflammation, a yellowish or greenish tint; occasionally, it is distinctly yellow; and if the eye be blue, a bright green is sometimes seen. Generally, however, the tint, whether yellow or green, is of a dull and muddy cast, and darker than in the sound state. In case of the iris being naturally dark-colored, it is less altered under inflammation, presenting merely a reddish tinge. Together with these changes of color, there is a complete loss of its natural brilliancy; it becomes dull and dark, and the beautiful fibrous arrangement, which characterizes it in the healthy state, is either confused or entirely lost." (*Lawrence op. cit.*) The inflammation of the iris which begins at the inner circle is sometimes restricted to this part, but more commonly it extends to the outer or ciliary border, and it is then that the red band round the cornea, formed by the vessels of the sclerotica, is observed. The color of this band is of a vivid red in acute iritis, and if this latter be intense the whole visible surface of the eye is of a uniform fiery redness. The red zone lasts as long as the inflammation of the iris continues; and if there should be only a section inflamed, the redness of the sclerotica is confined to the part corresponding with it.

When the disease becomes fully developed, the pain is more severe and even acute, extending from the eye to the supra-orbitar region, and it is accompanied

with increased lachrymation. The motions of the pupil are more and more impaired, until, with the increasing effusion of lymph, they are lost entirely: the pupil becomes gradually smaller and smaller, and it may be entirely closed if the disease is not arrested. Short of this termination, the pupil undergoes alteration in its situation; its edge being fixed at one or more points and free elsewhere. Sometimes it is angular and otherwise irregular. The diagnosis derived from the altered figure of the pupil, as alleged by Sichel, is not sanctioned by the experience of others. Thus he tells us that in rheumatic iritis, it is elongated or oval, its long diameter being in a vertical direction; in the arthritic variety it is transversal, and in the syphilitic it is obliquely oval or in a direction from below upwards, and from without inwards. The effusion of lymph in iritis shows itself in the texture of the iris, causing the changes of color already described, in the form of a thin layer; or in distinct masses of a yellow or reddish-brown color, varying in size from that of a pin's head to a split pea, which may be deposited on the edge of the pupil, or on any part of the anterior surface of the iris. A true abscess of the iris itself may be formed. Effusion may take place into the anterior chamber under the form of *hypopion*. Lymph may be poured out from the margin of the pupil or uvea, so as to agglutinate them partially or generally to the capsule of the crystalline. A mass of lymph sometimes fills the pupil; but, more commonly, a thin grayish web or film stretches across the opening, which loses its clear black color, and has a cloudy appearance.

The iris during the progress of inflammation swells, or at least appears to swell; and it approaches towards the cornea, becoming convex in front, diminishing the anterior chamber and sometimes having its surface puckered and irregular. If the disease be not checked, the inflammation passes from the ciliary circumference of the iris to the corpus ciliare, the choroid coat and retina, with increase of pain and fever, and ultimately with irrecoverable loss of vision, from change in the structure of the retina. Forwards, the cornea becomes more opaque, the conjunctiva more inflamed, "so that the case which was, at first, simple iritis, becomes subsequently ophthalmitis, or inflammation involving the external and internal tunics." Adhesions and the formation of an adventitious membrane on the pupil, and its final closure, are farther consequences of iritis.

The constitutional disturbance in acute iritis is often considerable, in its being attended with headache, thirst, loss of appetite, costiveness, and a full and strong pulse.

Causes.—These are the same with the causes of ophthalmia in general—wounds, surgical operations, particularly for cataract and artificial pupil, excessive exercise of the eye on minute objects, suppressed perspiration; other diseases, such as gout, rheumatism, syphilis and scrofula. Some writers, and among them is Mr. Travers, believe that the excessive use of murcury is a cause of iritis. It has been alleged that the greater frequency of the disease in syphilitic subjects is owing to the large use or abuse of mercury in these cases. On this point Mr. Lawrence shows that iritis has occurred in very many persons laboring under syphilis who had not taken any mercury.

Treatment.—This should be actively antiphlogistic, while, at the same time, the tendency to closure of the pupil and adhesions of its border is prevented by the external application of belladonna. Venesection should be early and freely resorted to, and active purging procured at the same time. The common indication for bloodletting, in a strong and full pulse, need not be regarded as a necessary guide in the disease before us, if the organ itself manifest the symptoms of active phlogosis, and deposition of lymph with its associate effects. As in other phlegmasiæ, however, when we have controlled the morbid excitement of the heart by venesection, but the inflammation of the iris still continues, we may have recourse to local depletion by means of cups or leeches to the temples, or behind the mastoid processes. Auxiliary to san-

guineous evacuations will be the regular use, at short intervals, of tartar emetic as a contra-stimulant. In the opinion of many ophthalmic surgeons and writers, there is a still more urgent call for the use of mercury, which they allege to have a peculiarly controlling power over iritis. Calomel and tartar emetic may be advantageously combined together, and both with nitrate of potassa, as in the treatment of most of the phlegmasiæ in this country. In harmony also with our experience in this class of diseases, is the fact that mercury cannot be relied on unless and until prior depletion by blood-letting and purgatives have been employed. Then will its good effects be conspicuous. On the other hand, although the antiphlogistic and antimonial treatment alone will suffice in some cases, yet in others, notwithstanding that it was highly proper and indeed necessary in the very early stage, yet it fails to cure, without the aid of mercury.

In cases of sub-acute iritis, small doses of mercury continued for a length of time, but without causing salivation, are preferable to larger doses of medicine. I have derived the best effects in this form of disease, after topical depletion, from the use of the iodide of potassium, administered in moderate doses during the day, and a pill of blue mass and hyoscyamus at night, aided by sustained pustulation of the temple of the affected side with tartar emetic. It is in the sub-acute and still more in the chronic form of iritis, that counter-irritation, either by the means just mentioned or by blisters or even a seton to the temple or to the nucha, will be found serviceable. Active purging, with the use of the blue pill daily, will contribute not a little to the desired end. When confidence is reposed in the efficacy of mercury as an alterative, its combination with chalk, as in the *hydrargyrum cum creta*, should be preferred as least liable to disturb the digestive organs.

The use of belladonna or of stramonium, in the form of extract diluted with water, or made into ointment, rubbed on the eyebrows and eyelids, is an important aid to the general treatment, by its active effects in dilating the pupil, and preventing and even breaking up adhesions of the iris to adjoining parts, and especially the membrane of the crystalline. In order to give effect to the narcotic action of the belladonna active depletion ought to be premised in acute iritis.

I shall not enter into details of treatment for the several varieties of iritis, viz., the rheumatic, gouty, syphilitic, and scrofulous, as the modifications in the general outline which I have just now sketched, will readily occur to you. I may just say, however, that in rheumatic iritis free depletion is required, although afterwards we may deem it advisable to give colchicum and the iodide of potassium; and that in gouty iritis we shall lay more stress on purgatives; and in the scrofulous variety on purgatives and tonics with chalybeates. Syphilitic iritis may seem to call imperatively for the use of mercury; but on this point we shall be guided by the same considerations that influence us in the treatment of syphilis affecting other tissues and organs. You will soon learn that mercury is not by any means a medicine of such indispensable use in any form or stage of syphilis as was for a long time implicitly believed. Of late years the oil of turpentine has been recommended, on the score of its success in the hands of Mr. Hugh Carmichael, of Dublin. He more particularly advises this article in syphilitic iritis—in cases in which the use of mercury is inadmissible. The dose is a drachm, three times-a-day, in almond emulsion, as the least offensive mode of administering it.

We have already carried this analysis much farther than we anticipated when we commenced it: and yet there are other subjects which not only from their intrinsic value, but the important light which the labors of Dr. Bell has thrown upon them, would seem to demand of us, to say the least, a passing notice; these will be found in his observations on epidemic meningitis, congestive fever, and

the identity of typhus and typhoid fever. We are compelled, however, to refer our readers to the work itself, and in doing so, we cannot take leave of the Lectures on the Theory and Practice of Physic, without expressing the satisfaction we have felt in the perusal we have just finished, of the many valuable additions which will be found in this edition, many of them we have not touched upon; yet the reader may rest assured, that Dr. Bell has not only "endeavored to do, [*but has done*] justice to the additions both in pathology and therapeutics." A little better than eighteen months since, when he retired from the editorial management of the Select Medical Library and the Bulletin of Medical Science, the profession had the assurance that his "literary labors were not to cease, but that he should from time to time, appear before them in the joint capacity of editor and author." In this, the first fruits of the fulfilment of that promise, we are much pleased and we feel fully impressed with the belief, that in this edition of Drs. Bell's and Stokes' Practice, the profession will find a deservedly-valuable work, one which, in most particulars, comes up to the spirit and demand of the times; one to which the practitioner and student may profitably and safely refer, and one, also, which, from its intrinsic merit, will, we doubt not, find a wide and extended circulation, and many close and attentive readers.

ART. VIII.—*A Practical Treatise on the Diseases of Children.* By G. FORSYTH MEIGS, M. D., Lecturer on Diseases of Children, in the Philadelphia Medical Association, &c. Philadelphia: Lindsay & Blakiston. 1848.

THIS is, as its name imports, a practical treatise, including most of the diseases incident to childhood and infancy. It is an octavo volume of 575 pages, printed with good type and on excellent paper; and constitutes one of the series entitled the "Medical Practitioner's and Student's Library."

It is too elementary in its character and too uniform in its style and arrangement to admit of an extended analysis. The author's arrangement is very similar to that adopted by Dunglison in his work on the Practice of Medicine, that is, "the classification of diseases according to the systems which they effect;" and each subject or chapter is methodically arranged, and the facts and opinions clearly and correctly expressed. In his preface the author says, "that in stating what he has himself observed, he has endeavored to do it with the greatest possible accuracy; and whenever the subject has concerned facts susceptible of numerical demonstration, he has invariably, if he has had the means, employed that method of statement, in order that the reader might be enabled to draw his own conclusions."

As an analysis of one chapter will afford the reader a fair idea of the author's style and method of treating his subjects, throughout the whole work, we shall present a summary of his article on

"Pseudo-membranous Laryngitis." After stating that this affection had been generally confounded, by older writers, with various spasmodic affections of the larynx, under the names of suffocatis stridula, cynanche trachealis, laryngitis, croup, &c. he proceeds to a consideration of his subject under the following heads, viz.: *definitions; synonymes; frequency;* "Pseudo-membranous laryngitis," says the author, "is an acute inflammation of the mucous membrane of the larynx, attended with exudation of false membrane. It is the croup of the French writers, and is called in this country slow, creeping, true, membranous, or inflammatory croup." He impresses the necessity of distinguishing it from spasmodic laryngitis or false croup, which is a much more frequent, but far less dangerous disease.

The frequency of the disease, (says Dr. M.,) is very considerable. During the ten years preceding 1845, there occurred in this city, (Philadelphia,) according to Dr. Condie, 3,977 deaths, under fifteen years of age, from bronchitis, croup, pneumonia, whooping-cough, and other diseases of the respiratory organs. Of this number, 1149, were from croup alone; and as spasmodic croup is seldom a fatal disease, it is reasonable to conclude that much the larger number of these deaths were from the disease under consideration. . . . . During the last five years, I have seen twelve cases of primory pseudo-membranous laryngitis, and in the same period, thirty-one of primary spasmodic laryngitis, of which I have kept a record.

Under the head of predisposing causes, allusion is made to the influences of age, sex, constitution and season. In regard to its contagiousness, the author says: "My own experience has never given me the least reason to suppose that it is propagated in this manner, as I have not known it to extend from one child to others in the same family." And he adds, "the *exciting causes* are but little understood; in none of the cases that I have seen, could the exciting causes be ever suspected." The *Anatomical Lesions* are stated to be false membrane covering the whole or a part of the mucous membrane of the larynx, and extending, sometimes, into the trachea and even the bronchia. The membrane is generally of a "yellowish white color, and from a fifth to a line in thickness." The color of the mucous membrane varies in different cases, from the normal appearance to that of a deep red, or even blackish. It is sometimes "brittle, friable, and thickened, and in rare instances, softened." In the secondary croup of scarlet fever, the exudation, or false membrane, is represented as thinner, less consistent, less adherent, and less uniformly spread over the diseased part; "and in some cases is puriform, soft and of a grayish color." The mucous membrane in those cases, is also generally discolored and softened. In the five pages devoted to *symptoms* there is nothing of sufficient special interest to justify quotation.

Dr. Meigs insists on the importance of distinguishing between those cases which commence in the larynx, and those originating in the pharynx. In the former cases, the first symptoms are hoarseness of voice and croupal cough, while in the latter the first symptoms are those of ordinary anginose inflammation, and these may continue several days before decided symptoms of croup make their appearance.

Concerning *Prognosis*, the author states that, "of the twelve cases observed by himself, six died. From personal experience I conclude that sporadic are less dangerous than epidemic cases, though the mortality is frightful, even in those. The danger is great in proportion as the child is younger and more feeble, in proportion to the rapidity of the case, and to the degree of dyspnœa or orthopnœa."

Over ten pages are devoted to the *treatment* of the disease, which he finally sums up in the following concise and judicious manner, viz:

My own conclusions in regard to the treatment are, that blood-letting is a valuable remedy, when resorted to in proper cases, and at the proper moment. In the form which begins as angina, and which is generally epidemic, it ought to be used with more caution than in that which commences as laryngitis. In the latter form, which is generally sporadic, it ought to be used more freely, especially in vigorous and hearty children. In children over two years of age, I would take, from three to four ounces of blood from the arm, once, twice or three times in two days, according to the strength of the child, and the degree and obstinacy of the fever. In both forms of the disease, emetics, and I would recommend the alum in preference to any other, should be given once at least, very often twice, and in violent cases, three times in the twenty-four hours, so as to produce vomiting attended with a good deal of effort. At the same time, I would give as a general rule, two grains of calomel with a quarter or half a grain of Dover's powder, every two hours, taking care not to give a dose for an hour before, nor after the time selected for the exhibition of the emetic. In cases in which there is loud stridulous respiration, heard both in the inspiration and expiration, in which previous treatment has had no effect, and in which there is threatening of speedy death, I would give four grains of calomel every hour, until three or four doses have been taken, and direct the exhibition of an alum emetic, after the last dose. Seven of the twelve cases so often referred to, were fairly treated by the mixed method just described. One I saw with Dr. Rutter of this city, two with my father, and four I attended myself. Of the 7, two died and five recovered.

The advantages of *alum*, which the author prefers as an emetic in this disease, are thus stated: "it is certain and rapid in its action, and it operates without producing exhaustion or prostration beyond that which always follows the mere act of vomiting. It does not tend, like antimony, and in a less degree ipecacuanha, to produce adynamia of the nervous system; an effect which, in some constitutions or states of the system, or when it has been exhibited frequently, is often attended with injurious, or even dangerous consequences." These are highly-important advantages, and well worthy of consideration. The alum was first recommended by the author's father, in an article published in 1838. The author makes no mention of the application of nitrate of silver to the larynx, in the treatment of this disease, although several cases illustrating the success of this mode of treatment, have been published in the medical journals within the last two years. These cases are sufficient to render the remedy worthy of mention at least; and from its well-known good effects in pseudo-membranous pharyngitis, we have no doubt but its timely and thorough application will be found one of our most effectual means for combatting this truly fatal disease of the larynx.

The foregoing extracts are sufficient to give the reader a fair idea both of the author's style and his method of treating his subjects; and this is all we have time or space for at present. The work is throughout systematic, well written, and highly creditable to the author; and may be read profitably by every practitioner and student in the country. There is, however, one defect in it, which we regret; and which ought not to be passed by without notice. We allude to the very partial or imperfect manner, in which the author has referred to preceding American writers on the same subject. It is true that the names of Dewees, Eberle, Condie, and others of Philadelphia, appear on almost every page, and their writings are freely quoted; but writers in other sections of the Union, equally entitled to consideration, are scarcely named. Thus, the name of Stewart is mentioned three times, referring, we presume, to Dr. James Stewart of this city; but in such a manner, that no reader could suspect him to be the author of one of the most complete and valuable treatises on diseases of children that exists in our language; not a line nor an opinion of his is quoted from the beginning to the end of the volume. Neither is there the slightest allusion to those exceedingly valuable papers of Prof. J. B. Beck, on the influence of blood-letting, opium, emetics, mercury, &c., on the young subject, which were recently published in the journals of this city, and extensively copied elsewhere.

And though Dr. Meigs devotes a special article to the importance of *re-vaccination*, in which, in addition to his own experience, he freely quotes the opinions of Drs. Condie and Wood, no reference is made to that most conclusive and valuable paper, by the late Dr. Forry, on the same subject, and which received the Boylston prize for 1844. But this is not all; for we find opinions and recommendations on important topics, stated in such a manner as to induce the reader to think them *original* with the author himself, which in all fairness ought to have been credited elsewhere. This is particularly the case in regard to the use of gelatine and animal substances, as food for children, when afflicted with bowel affections. Thus on page 193; he says:

> I would recommend in these cases a diet, which I have found to agree better with children deprived of the breast, than any other that I have ever directed. I have emp'oyed it now in a great many instances, and believe it to be the best substitute for the natural aliment that I am acquainted with. It is made by dissolving a small quantity of prepared gelatine or Russian isinglass in water, to which is added milk, cream, and a little arrow-root, or any other farinaceous substance that may be preferred. . . . . I have given this food to a great many children for upwards of a year past, as well to those brought up entirely by hand, as those partly suckled or weaned, and can truly state that they have thriven better upon it than upon anything that I have ever emp'oyed. [Again on pages 307–8, he says,] It may be stated, however, in general terms, that the food ought to consist, at least in part, of milk or cream, a wholly farinaceous diet, as I have so often said, being, as a rule, unsuitable and injurious to the digestive organs. The diet that I prefer, is the gelatine food already described, with a small proportion of milk."

Now, it is true that here is no specific claim to originality in the use of gelatine and milk, instead of the old practice of confining the

child exclusively to farinaceous substances, when laboring under diarrhœa, cholera infantum, &c. But sins of omission are sometimes as bad as those of commission; and Dr. Meigs ought to have known, if he did not, that this important change in the diet of children, which is really of more value than any one other improvement which has been made in their management during the last twenty years, was first formally brought to the notice of the profession by Dr. James Stewart, in an article published in the New-York Journal of Medicine, for Nov., 1844.

In this article, Dr. Stewart demonstrates the indigestible nature of the farinaceous substances generally employed, by reference to the numerous post-mortem examinations made by M. Natalis Guillot of Paris, and other experiments; and deduced, from physiological considerations alone, the superior adaptedness of gelatine, &c. And not only so, but he had tested his deduction by experience, concerning which he speaks as follows, viz.:

> For some *years* past, it has been my practice to recommend a thin mucillage or jelly made from isinglass, in the treatment of the affections referred to, when soothing and unirritating food is indicated, in preference to the use of arrow-root, and with so much uniform advantage, that I have been fully satisfied of its peculiar adaptation to the condition of infants. To give instances would be to detail almost every case I have been called to attend.

Ever since the appearance of this article, which the reader will recollect was in 1844, the best practitioners in this city, and many other places, have been in the habit of daily recommending the same kind of food that Dr. Meigs has found so much benefit from using "for upwards of a year past." We have not made the foregoing remarks, either from a fault-finding disposition, or as applicable alone to the work under review. But we allude to this defect in Dr. Meigs' work, solely on account of its bearing on our national medical literature. The profession in other countries, and even the younger members in our own, look to such books as this for a true representation and posting up of the medical writers and writings that have previously existed on the same topics. Hence, a two-fold injury results from every such omission as we have referred to. 1st. It conveys a wrong and depreciated impression of our own medical literature, which every right-minded man should be proud to uphold and extend. 2d. It discourages investigations and directly lessens the disposition of members of the profession, to contribute to our medical periodicals. And, lastly, it betrays on the part of an author, either a lamentable ignorance of the medical literature of his own country, or the possession of a narrow-minded selfishness unworthy of an enlightened member of an honorable profession.

N. S D.

ART. IX.—*Principles of Medicine: comprising General Pathology and Therapeutics, etc.* By C. J. B. WILLIAMS, M. D., F. R. S. Edited with Additions, by MEREDITH CLYMER, M. D. Third American from the second and enlarged London edition. Philadelphia: Lea & Blanchard. 1848. 8vo., pp. 440.

WE are happy to see another edition of this valuable work. The pleasure with which we read its predecessor, made us welcome this volume as we would the face of a well-tried and valued friend. We scarcely know of a more useful and satisfactory work for the general practitioner than the one before us. He who desires to understand the principles of our "noble science," who wishes to rise above the mere routine of a hap-hazard prescriber, to leave the ranks of empiricism, and to become a *scientific physician*, "who" as Hippocrates says, "is like a god," can but take delight in the perusal of this work. The old saying of Virgil, "Felix qui potuit rerum cognosare causas," is true to this day, for it expresses a fundamental truth in human nature. Hence a book that traces the causes of disease and the effects of remedies, gives pleasure to the reader, and at the same time confers a lasting benefit upon mankind. Such we sincerely believe this book to be. The author tells us, in his preface, that it contains very extensive additions, comprising the enunciation and application of most of the facts and established deductions made available to the science and art of medicine during the last few years. These additions, he says, pervade almost every portion of the work, but are mostly in the following subjects: "In Etiology, *mechanical, chemical and dietetic causes of disease, defective cleanliness, ventilation and drainage.* In Pathology, the tabular views of the elements of disease; *reflex action of sympathy; elementary changes in the blood; congestion; determination of blood; inflammation*, in its nature, manifold results, and mode of treatment; *degeneration of textures, cacoplastic and aplastic deposits*, and their treatment, with a notice of the action of *cod-liver oil*, and the whole chapter on Hygienics, comprising *food, clothing, air, and temperature, exercise, mental occupation, sleep and excretion.*"

These additions, together with those of the editor, make some sixty pages of new matter, besides an appendix containing articles on the *pathology of gout and albuminuria, the causes and treatment of scurvy*, and on the use of chloroform.

As we suppose our readers are pretty well acquainted with the former editions of this work, it will only be necessary for us to give some extracts from the additions in order to afford them a just idea of the whole as it now appears in a new dress, which, by-the-by, contains the least improvement of any part of the work. In fact the paper and typographical appearance, though fair, are not equal to some of the other editions.

When speaking of intoxicating liquors as an exciting cause of disease, our author says:

The most disastrous consequences of intemperanceare exhibited by the habitual drunkard, who, in proportion as he indulges in liquor, loses his appetite

for food, and his power of digesting it. He then drinks and starves, and the disease which ensues comprises the exhaustion of inanition with the more direct effects of the alcoholic poison. Thus in delirium tremens, the drunkard's disease, together with the permanent restless excitement of the irritated nervous system, which adds more and more to the exhaustion, the weakness of mind and body is fearful, and in bad cases affect even the organic functions, so that the pulse is very weak and frequent, the excretions scanty and depraved, and the respiration is too imperfectly performed by the involuntary powers to permit sleep to ensue. This exhaustion must soon terminate in death, unless prevented by appropriate treatment; and this must comprise, besides opium, (the common remedy), ammonia and other stimulants to the circulation and respiration; purgatives and diuretics to free the blood from the excrementitious matter that has accumulated in it; and fluid nourishment to repair its waste. Without these adjuncts, opium will not only fail to procure sleep, but its narcotic influence may extinguish the flame of life.

This will strike every one who has seen and treated a case of delirium tremens as giving a faithful representation of the patient's deplorable condition, as well as the rationale of a judicious mode of treatment. After having read this, we were surprised to find our author giving to that which is the source of all this difficulty an important place among his articles of hygiene, and recommending it at the most important meal of the day! When giving his plan of diet, (page 393) for *healthy adults*, he says these beverages may be allowed at dinner—"sound white wine, (Sherry or good Marsala, from one to three glasses,) which is generally better mixed with water, or sound Sauterne, or Moselle unmixed. Those who use much exercise may substitute sound malt liquor, bitter ale being the lightest, and good porter or stout the more sustaining. Half a pint is generally as much as is good for health." This was the more surprising still, after reading again from page 40, "Strong drinks, when taken only or chiefly with food, not as a substitute for it, but as a constituent of general 'free living,' contribute to the production of an abundance of ill-assimilated, overheated blood, which either finds its vent in eruptions on the surface, or in local hemorrhages or fluxes, or causes various functional disorders, such as palpitation, vertigo, stupor, dyspepsia, bilious attacks, &c., or may tend to the production of a fit of gout or gravel. The latter results are promoted by such beverages as contain much free acid as well as an abundance of spirit, such as port-wine, rum-punch and hard strong beer. The less acid malt liquors, ale and porter, tend rather to induce liver disorders, and an abundant deposition of fat in the body." After having stated this, how could an author recommend this bewitching, seductive and intoxicating family of beverages to be taken daily with our food? We hold that a man in *health* needs no such stimulus, and if he takes it, he acquires a *morbid appetite* for it, which in being gratified engenders an artificial demand, that too often becomes uncontrollable, and ultimately makes the man a drunkard. "Total abstinence, therefore, is preferable to moderation *not only* because it is morally easier to practice, *but because* it is more salutary in its physical effects."

In the treatment of anæmia, after having spoken of the beneficial effects of ferruginous and other tonics, he says:

The success of the treatment becomes manifest, not only in the return of a healthy color to the lips and skin, size of the superficial vessels, and strength to the pulse, but also by an improvement in all the functions, breath, strength, digestion, &c. It is a curious fact, that the venous murmurs although diminished, are not so in proportion to the apparent return of color to the surface; I have before given reasons for considering them to depend on deficiency of albumen, as well as of the red particles. This does not accord with the opinion of M. Andral, who reckons the vascular murmurs to be a true exponent of the deficiency of the red particles only; but this, as a matter of observation, loses weight from the erroneous notion which he, in common with Bouillaud, holds as to the true seat of these murmurs. They believe them to be in the carotids only; I several years since was satisfied, from numerous and varied experiments, that Dr. Ogier Ward's opinion, that the loudest murmurs are in the veins, is correct. I may add, that they are to be accurately investigated only by the flexible ear-tube recommended by Dr. Stroud.

The author quotes from his friend, Mr. John Erichsen, to prove a former suggestion of his own, that the congestion in asphyxia results from the contraction of the minute arteries being excited by the passage of venous blood through them, as follows:

But we may go a step farther, and prove that it (venous blood) actually possesses this power; causing these vessels to contract distinctly, as I have several times observed, on examining under the microscope, the mesentery of rabbits, during and immediately after the process of asphyxia. This may be done without much difficulty, as the circulation of these animals, when quite young, continues for many minutes after the struggles of asphyxia have ceased. On asphyxiating a young rabbit, a portion of whose mesentery had been conveniently fixed under a powerful microscope, the following phenomena will be observed to ensue. For about a minute after the struggles of the animal have ceased, the circulation appears to be going on with its usual rapidity; it then gradually becomes somewhat slower, the arteries contracting in size, containing less blood, and assuming a lighter and more tawny color than before; whilst the veins become congested, and evidently fuller, assuming, when viewed by transmitted light, a very beautiful crimson hue. As the circulation becomes more languid, the arteries continue contracting, and acquire a lighter color, the diminution in their size, and the difference in the quantity of blood contained in them and in the veins, being most marked. The motion of the blood in the capillaries now becomes oscillatory, the whole mass of blood being at each impulse from the heart, slowly propelled forward, and then moving backwards. This to and fro motion continues for some time, and then ceases entirely. On restoring the heart's action by setting up artificial respiration, an impulse was evidently transmitted from the blood in the arteries to that in the capillaries, in a pulsatory and jerking manner, which was soon communicated to the veins, driving forward the whole mass of globules accumulated in them, and gradually becoming more equable and powerful until the circulation was completely restored. I have watched these phenomena most attentively in the mesenteries of young rabbits, and have never observed anything like spontaneous movements in the capillaries; the blood contained in which was invariably most clearly and distinctly influenced, solely by the impulses it received from that contained in the arteries. Nor have I ever been able to discover any obstruction in the vessels, in consequence of the adhesion of colorless globules to the sides—a phenomenon that I have watched for, and which has by several been supposed to occur. The diminution in the diameter of the smaller arteries, and the proportionate difference between them and the neighboring veins, were most evident, and were such as could leave no doubt, in my mind, as to the important part that the contraction of these vessels

plays, in giving rise to an obstruction to the passage of the blood through them in asphyxia; in which I have no doubt that it is the principal, if not the sole agent.

These observations correspond perfectly with what I have many times observed in the frog's web; and we may fairly infer that the same obstruction which operates in the systemic circulation, will suffice also in the pulmonary. The notion of vital attractions of the blood for the vessels, or even of the aggregation of the red corpuscles (suggested by an imperfect observation of Mr. Wharton Jones), as causing the obstructed circulation of asphyxia, is not only superfluous, but untenable, for, were the obstruction in the capillaries and veins, the arteries, for a time at least, should exhibit distention, which the above description proves not to be the case.

His remarks on the degenerations of tissues; upon aplastic and cacoplastic deposits, are particularly interesting. After having treated of tuberculous and other cacoplastic deposits he speaks very highly and encouragingly of the power of cod-liver oil in promoting their removal. Whether his remarks will stand the test of general experience remains yet to be seen. Every discovery in the pathology of this disease seems to be but the dawning light of that glorious day which was so enthusiastically prophesied by Rush, in which Consumption, with all his pale but destructive companions, would be put to flight by the soldiery of medicine. We hail with pleasure any indication of the approach of such a physical millenium. On page 313, the author says:

Fixed oils also possess a solvent power on the fat of tubercle, and they have no such irritating or active properties towards the textures as to deter us from using them in quantities much greater than can be given of any of the above-named agents, and sufficient to justify the inference that they do exercise a very marked influence on nutrition, and do therefore thoroughly and abundantly pervade the textures of the body. But the greater number of fixed oils soon disagree with the stomach, bowels, or liver, causing nausea, inappetency, diarrhœa, bilious disorders, and other evil effects formerly noticed to result from excess of fat in food, and this they appear to do in proportion to their proneness to absorb oxygen and become rancid, and therefore acrid, and often losing their fluidity. In these respects fish-oils have greatly the superiority, being more permanently fluid and less liable to turn rancid, provided they be not contaminated with putrid matter in their manufacture, (which is commonly the case, and they therefore require to be purified with animal charcoal). Of fish oils, experience chiefly testifies in behalf of that from the liver of the cod; but analogy favors the supposition that spermaceti oil, and seal oil, if equally purified, would be not less eligible, and they would have an obvious advantage in their more abundant supply, and lower price.* But it is important that the oil should be as free from taste and smell as possible, and for obvious reasons, I prefer that which by cooling and settling, or by filtration, is deprived of most of the stearine. Such an oil given in doses gradually increased to a tablespoonful three times a day, in the great majority of cases, agrees well with

* I think it scarcely necessary even to advert to a supposition formerly general and still entertained by a few, that cod-oil owes its efficiency either to its offensive impurities, or to any iodine which it contains. I will merely state that in some hundreds of cases in which I have prescribed the oil, the best effects have generally resulted from the use of the purest kind; and in many of these cases, various forms of iodine had been exhibited without producing any of those marked changes which followed the taking the oil.

the stomach and bowels, increases rather than impairs the appetite, and, if continued for some weeks or even months, promotes in a marked degree the function of nutrition, increasing the strength as well as the flesh, and giving increment to all the textures. Nor is this surprising when we consider that the nuclei or rudimental molecules of all structures appear to consist of fat, which the oil in its highly divisible state, supplies and renews in the manner most conducive to active and healthy nutrition. Its peculiar fluidity and little proneness to change also enable it to pervade all structures, and to penetrate even into imperfectly-organized deposits, and by softening their concrete fatty molecules, and rendering more permeable and supple their whole mass, brings them more under the influence of the adjoining living parts, through the circulation in which, either their vitality and nutrition are improved and maintained, or, if incapable of improvement, they are gradually dissolved and absorbed away.

Such appears to me the mode of operation of the cod-liver oil, assuredly the most efficacious of all medicinal agents in the treatment of cacoplastic and aplastic deposits, and one which, after two years' constant experience in its use, is still frequently surprising me by the wonders that it occasionally works even in aggravated and advanced cases of scrofula, mesenteric disease, pulmonary consumption, chronic pneumonia and pleurisy, and chronic rheumatism.

The "typhous material" which is deposited in the lungs, spleen, in the glands and under the mucous membrane of the intestines in typhus fever, he regards as bad fibrine or cacoplastic lymph. May not, therefore, this same cod-liver oil be worth yof trial in such cases?

The editor has made a number of relevant quotations from good authors which enhance the value of the work. He has also added some twenty-five pages of original matter on the subject of semeiology (*original*, we said, but it is so far only as the re-marshalling of ideas long known, can be called such). This article will be read with interest by the medical student.

The author's remarks on hygienics are in the main judicious, and are worthy the attention of all. On the different subjects that enter into this chapter he has spoken briefly, but in such a manner as to make the book desirable if it contained nothing else. Our limits would fail us to go into an analysis of it. We trust we have already given our readers an opportunity of judging of the nature and worth of the *additions* contained in this edition by the quotations we have already made.

We will therefore close our notice of this really valuable work, by making one quotation from its last page, which we do with no little satisfaction and national pride. After having spoken of medicine as embracing a machinery more intricate than a philosopher can devise, a laboratory more subtile than the chemist's, and, in fact, as rising above the material to contemplate and treat the *entire man —physical, moral and intellectual.* He says:

Neither shall I strain your thoughts far to remind you of its moral worth. See its effect on masses of mankind, displayed in the progress of the happy discovery of Jenner! See how even barbarous people and idolaters, Musselmen, Hindoos, and Chinese, respect our nation only for the medical aid which it can supply. So that it has happened that medicine has become the handmaid of religion—a bond between countries, a peace-maker between nations.

But let us not vaunt ourselves. Listen to one who speaks of our art—and that one the eloquent ambassador from the United States, the Honorable

Edward Everett. I quote from the *Times* of the day before yesterday:—"For what was that which constituted the chief pride and glory of the British nation? They had heard of the intercepted letter from one Chinese chieftain to another; and what was the characteristic which had excited the admiration of a mandarin of a great and important empire, reeling at the time under the blows of the British government? Was it the steam-vessels of war reaching coasts in defiance of the desolating simoon? Was it their arms—their artillery—their skill of engineering, which civilized nations now brought to the strategy of war? Was it this, or any of these, which had struck with wonder and awe, and admiration, the barbarians of China? No! It was the humanity of British physicians and surgeons—their management of hospitals, and the generous kindness which was extended to the sick and wounded, even of a hostile nation—which moved them with astonishment, and excited their sympathy and regard. These were some of the arts of peace which extorted the admiration of an enemy, and which other states would do well to imitate."

D. C. E.

ART. X.—*The Influence of Dress in the Production of Disease in Females.* By Dr. WILLIAM D. PURPLE, Member of the Medical Society of the State of New-York, &c. [Read before the Chenango County Medical Society, June 10th, 1847.] Albany: Joel Munsell, 1848. 8vo. pp. 11.

THERE is no truth more apparent (says the author of this essay) to the medical practitioner than the gradual and almost imperceptible change in the pathological characteristics of a given period of time. "It is the duty of the members of the profession to note these changes, and in their associated capacity to investigate their causes; to inquire how far they depend on external agents beyond our control, or are chargeable to the habits and customs of society. It is a maxim no less trite than true, that "man is a bundle of habits," and that those habits are fleeting and transitory. And so far as they can be relied upon, as causes of pathological characteristics, so far will diseases be found "ever varying, ever changing."

Dr. P. then goes on to state that "there is no more potent sovereign over human habits and actions, than fashion. It is true that man is a philosophical being, and a large majority of our sex are controlled by the principles of comfort and convenience in our dress, and although there may be a few who 'ape the ape,' and bow with implicit obedience to the laws prescribed by fashion—yet they are not allowed to contravene the utilitarian standard so far as to interfere with pathological characteristics." Of the truth of the foregoing remarks, there can be no doubt. At the present time, nothing is more evident than that fashion holds over society a control which demands of all classes an implicit obedience, a control over dress, diet, sleep, &c., which saps the very foundations of health—and leads on many a fair and otherwise comely youth to a doubly miserable existence, or a premature death. "Grace, ease, elegance and comfort, are alike immolated to this Moloch, who spares none who pretend to the rank of *fashionable!*"—(GODMAN.) Dr. P. believes that the tyrant of fashion (for we know no more appropriate name to designate it by) holds a most powerful and resistless sway over the female sex. On this point, he remarks:

But the "fickle fair," of this genus Homo is gregarious in all her habits; with her no sacrifice is too great at the throne of fashion; her whole soul is engaged in her devotion, and she not unfrequently offers her "body as living sacrifice" to the god of her idolatry. The spring and fall costume of Paris or Broadway, has entire control over her—no matter how grotesque she may appear—no matter how it may burlesque the "human form divine"—no matter what may be their present inconvenience, or their permanent influence on health, the rules prescribed by a few interested dress-makers, must be implicitly followed.

In comparing present with past times and customs, and in alluding to the gradual, marked change which has taken place in the personal as well as physical appearance of the female sex within the last half century, our author remarks:

It would be truly interesting to enter a gallery composed of female figures, habited in the various fashions that have prevailed for the last fifty years. Nor would it be less amusing than instructive to the pathological inquirer. We should see as the representative of the commencement of this period, a lady dressed in what was delicately called a "petticoat," made of flannel, barely large enough to go around the body, and enable her to walk with the measured pace which was then requisite to good breeding; it is pinned loosely around the body under the arms, and supported by short suspenders or shoulder straps. The calico gown, or what was called a "short gown," loose and free, tied with a few tape ties, completes the dress of this representative of our grandmothers in the mild seasons of the year. Then the body had a natural shape, that which an allwise Architect gave it—the several cavities were fitted in size to contain, in their natural position, the various organs. Then there was in ladies, as pertains in gentlemen, a cylindrical form, whose circumference was nearly the same in the throracic, abdominal and pelvic regions—then the functions of the viscera were duly performed, and all moved in harmonious concert. The heart beat freely, the lungs were duly expanded, the stomach and bowels were circumscribed by muscles whose province it is to promote free, general and peristaltic motion—the pelvic viscera had ample room for all their healthy action, and were not compelled to seek less circumscribed quarters to manifest their various functions.

The representative of a modern lady shows us that a change has come over this native simplicity and natural form. An edict has gone forth from the throne of fashion, that art must usurp the prerogative of nature. Not content with her legitimate sphere of controlling in all their endless variety the habiliment of the sex, she advanced a step farther than she even ventured before with reasoning mortals, and declared that the female must be moulded into a more angelic form, and be made to approximate by an hour-glass contraction the sylph-like form of the ant upon the mole-hill.

The mechanical arts were immediately brought in requisition, and the combined powers of the screw, the wedge and the tackle were had in requisition to abridge the work-shop of the vital and animal functions. This was no difficult task. Habit, stimulated by pride of personal appearance at first, made the requisite effort—the slow and gradual yielding of the flexible parts at a young and tender age, stimulated the votary to perseverance. The stimulus of pressure became more and more tolerable, until like other bad habits, it became to a certain extent essential to personal convenience.

After this, he goes on to specify some of the derangements of position and function of organs, which result from the truly awful torture to which the female portion of society are subjected. But our space will not permit an enumeration of them; they are, in a measure at least, well understood by the physician, and yet their effects

are not readily within his control. Removal of the primary cause is not in all cases followed by a cessation of the effect. Is this to be wondered at, when we remember how great a displacement of the pelvic and abdominal viscera is present in such instances? Who is there, that would not in view of this, be led to exclaim in the language of Godman, "It is impossible for a benevolent mind, acquainted with the reality and extent of the mischief thus produced, to behold youth, grace, and beauty sacrificing the dearest boons of life to the tyranny of perverted taste and preposterous fashion, without experiencing emotions of profound regret for the immediate victims, and sighing for the future condition of a posterity derived from such a parentage." In speaking of the diseases, &c., which are produced in females by the modern style of dress, Dr. P. says:

Can I be mistaken in the charge that this general displacement, and the consequent symptoms, are produced by the pressure of the modern style of dress? Is there a doubt that a large proportion of these cases are mainly or entirely chargeable to external pressure? Why do not these symptoms occur in the male? Can there be a doubt that similar sensations would, in him, follow the same abuse? These symptoms are not confined to the uterine system; they are not the result of uterine action; they do not belong to its physiological or pathological characteristics, and yet all grades and classes are affected by them, and perhaps not one in five is entirely free from their influence. The higher circles of society, those most subservient to fashion's control, are the most exposed to all these symptoms; they exist for years unknown to their most intimate friends:

> "They are deep and hidden griefs,
> That come from sources that admit of no complaint,
> From things of which she cannot, dare not speak;"

and hence they become chronic, under the nursing care of the cause that produce them.

This abuse of the system is insidiously introduced. It is interwoven in the very formation of society. The subjects themselves know not its influence over their physical health, and like the deluded votary of the intoxicating bowl, they are the unconscious authors of their own abject wretchedness. It is true that some can endure it with impunity, but others, of a lax muscular fibre, are greatly affected by it. Hence we see all varieties and grades of disease from this cause, from slight nervous irritability, to the confirmed bed-ridden subject. If the subject is alluded to by a medical adviser, a broad denial is the usual reply, and the subject is evaded, as delicate and holy ground. A large proportion will tell us they do not "dress tight;" but it is only *comparatively* they speak; for if they should dress as the other sex, they would feel "all unstrung." The habit is commenced in early youth, when the system is growing, and although after the attainment of a certain age, it may be gradually diminished, yet the organs have an artificial position, and its effects exist in many instances through life, and may, and doubtless in some instances do, transmit its deteriorating influence to posterity.

The ordinary modes of treatment, when successful, confirm the pathological views here taken. The pessary, the supporter, and lace, all, to a certain extent, exert a counteracting mechanical influence, and relieve momentarily the hernial tendency. But while the cause remains, they only serve to compress the viscera into a still smaller compass, increasing many of the symptoms without relieving the remainder.

The curative indication is to remove the cause; to remove every obstruction to the due development of the internal organs, and a healthy discharge of

their functions. Let them, as nature designed, control their own space, and their own appropriate position in the animal economy, and a healthy and a vigorous action will be the result. These symptoms are, as I have endeavored to show, the creatures of *fashion*, are entirely of modern origin, and are not among the "*ills that flesh is heir to*;" and when the cause is removed, by restoring the female form to its legitimate proportions, they will entirely cease from among us.

The view which the author here takes in regard to the primary cause of the physical imbecility of the female sex of the present age, viz.: that it has its origin in the "folly of fashion," and ought not to be considered as having its rise legitimately among the "ills that flesh is heir to," we think perfectly correct.

In connexion with this subject, I must allude, before I close, to the very imperfect manner the skin is protected by the fashionable dress of the females of our country. Whoever regards with a physiological eye the functions of the skin, and takes into consideration its very delicate texture, the extraordinary amount of its excretion, and its very intimate sympathy with the functions of the uterus, cannot but be convinced that the health of the female very much depends on its being well protected from sudden changes of temperature. The warm stove rooms of our modern houses, form a very great contrast with "the peltings of the pitiless storms without," in this our northern climate. The dress of our ladies bears no proportion to the rigor of the colder seasons of the year, nor to that worn by the more hardy sex. It is true, if they are to ride, more care is taken; but if their daily avocations call them to the open air, they are found with the body but feebly protected; the chest with a thin, tight fit; the neck bare, the arms with but a single thickness of calico, their feet with the thin-soled slipper; the ample folds of their skirts so carefully removed from the body that the wind "bloweth where it listeth," and although we "cannot tell from whence it cometh," yet it is no difficult task to tell "whither it goeth." It finds ample room to revel in all its "wanton wildness" on three fourths of the surface of her body. Clothing, in order to guard the delicate functions of the skin, requires to be in actual contact with it; and the style imposed by fashion, of the female dress, doubtless lays the foundation of much of the weakness of the "weaker vessels" of our species.

It is our duty to awaken attention to these subjects; to expose the "folly of fashion" in our daily professional avocations, and to attack the *cause* of many of the diseases and weaknesses incident to females; to explain the reason why our ladies are not as healthy as their grandmothers were, and are becoming every year more and more effeminate. In reply to their complaints, we should endeavor to convince them that medicine will have little or no effect, unless the cause is removed; we should appeal to mothers, to let nature mould "the human form divine." We should cry aloud and spare not, until the galling bonds of *fashion* shall cease to drag our ladies to the dust; then, and not till then, will they breathe more freely, and posterity assume a more hardy character, and award the meed of praise to those who closed this prolific source of some of the most dangerous and uncomfortable diseases that have in these modern times escaped from Pandora's box.

In our admiration of the able and fearless manner with which the author of this little pamphlet has treated his subject, we had almost forgotten to state that it was first published in the Transactions of the New-York State Medical Society, for the present year. Certainly its author deserves our warmest praise for the interest he has thrown around this subject—a subject which called forth from the pen of the unfortunate and ever to be lamented Godman one of his most able and classic essays.

BIBLIOGRAPHICAL NOTICES.

ART. XI.—*An Account of some of the most important Diseases of Women.* By ROBERT GOOCH, M. D. With illustrations. Second edition. Philadelphia: Barrington and Haswell. 1848. 8vo. pp. 322.

WE are confident that nothing can be said by us which will, even in a small degree, render more popular this work of Dr. Gooch. It has for many years been before the profession of this country; and notwithstanding the numerous more recent publications, it is still demanded by the wants of the profession. It does not claim to be a complete treatise on the diseases of females, but upon the subjects of which it treats, we know of no work so sound in principles and practice as this little book. Presuming that most if not all our readers are well acquainted with it, we can say to such as do not own it: it is one which possesses peculiar claims to your attention, and is one of a very limited number which can be truly said to possess a thorough practical character.

ART. XII.—*Medical Chemistry for the use of Students and the Profession: being a Manual of the Science with its application to Toxicology, Physiology, Therapeutics, Hygiene, &c.* By D. P. GARDNER, M. D., formerly Professor of Chemistry in the Philadelphia College, and of Chemistry and Natural Philosophy in the Hampden Sydney College, Virginia, Corresponding Member of the Lyceum of Natural History, New-York, etc. etc. Philadelphia: Lea & Blanchard, 1848. 12mo. pp. 396.

THE cause which necessitated the production of this manual was, we are informed by the author, the "absence of a book which directs the attention of the novice to the intimate connections between this science and medicine,—something which may interest his mind in the subject of chemistry, by pointing out its relations to physiology, therapeutics and practice." It makes no pretensions to originality, and claims to be a manual which may serve as an introduction to more elaborate essays, and presents to its readers a concise view of the facts collected by the late researches of the German and French chemists,—researches which have in some measure been unappreciated among us, from the want of chemical knowledge and the apparent difficulty of acquiring it." The work is divided into five parts. Part I. TheC hemical Forces embracing the subjects of *Heat, Light, Electricity, Galvanism, Animal Galvanism and Affinity.* Part II. The simple bodies of the greatest importance, comprising *Oxygen, Hydrogen, Nitrogen and Sulphur.* THE HALOID ELEMENTS, consisting of *Chlorine, Iodine, Bromine and Fluorine.* THE PHOSPHORUS GROUP, including *Phosphorus, Arsenic, Antimony, Carbon, Boron and Silicon.* Part III. Organic Chemistry. Part IV. Animal Chemistry, which treats of *Digestion, the Blood, the Capillary Force,*

the Urine, Nervous Matter, Bone, Hair, Horn, &c. Part V. The Metals. It is illustrated with a sufficient number of plates to render the description of the work clear, and from the perusal which the short time we have been able to devote to it has permitted, we are of the opinion that it is admirably adapted to the end designed. We shall be much disappointed if it is not adopted as a text-book in all our American colleges.

ART. XIII.—*The Half-yearly Abstract of the Medical Sciences.* Being a Practical and Analytical Digest of the Contents of the Principal British and Continental Medical Works published in the preceding six months. Together with a Series of Critical Reports on the Progress of Medicine and the Collateral Sciences, during the same period. Edited by W. H. RANKING, M. D., Cantab., etc., etc. No. 7. January to June, 1848. Philadelphia: Lindsay & Blakiston. 8vo. pp. 358.

The Retrospect of Practical Medicine and Surgery. Being a Half-yearly Journal, containing a Retrospective View of every Discovery and Practical Improvement in the Medical Sciences. Edited by W. BRAITHWAITE, Surgeon to the Leeds Eye and Ear Infirmary, and Lecturer on Midwifery, and the Diseases of Women and Children, in the Leeds School of Medicine. No. 17. January to July, 1848. New-York: Daniel Adee, 1848. 8vo. pp. 355.

WOOD'S *Quarterly Retrospect of American and Foreign Practical Medicine and Surgery.* No. 5. July, 1848. New-York: R. & G. S. WOOD. 8vo. pp. 64.

These works continue to maintain their well-earned and merited popularity. We believe they receive at the hands of the physicians of our country a liberal and extended patronage. The numbers before us are filled with choice and practical matter—which, to the same extent, is nowhere else available to a majority of the members of the profession.

PART THIRD.

EDITORIAL

AND

AMERICAN MEDICAL RETROSPECT.

PROCEEDINGS OF THE THIRD MEETING OF THE ASSOCIATION OF MEDICAL SUPERINTENDENTS OF AMERICAN INSTITUTIONS FOR THE INSANE.

To the Editor of the New-York Journal of Medicine, &c.

Dear Sir,—In compliance with a resolution of the Association of Medical Superintendents of American Institutions for the Insane, I enclose an abstract of the proceedings of their late meeting.

Very respectfully, yours, &c.,

June 16th, 1848. THOMAS S. KIRKBRIDE, *Sec.*

The Association of Medical Superintendents of American Institutions for the Insane, commenced its third meeting at the Astor House in the city of New-York, on the 8th of May, 1848, the Vice-President, William M. Awl, M. D., in the chair, and Thomas S. Kirkbride, M. D., Secretary.

Present—Dr. James Bates, of the Marine Insane Hospital at Augusta; Dr. Andrew McFarland, of the New-Hampshire State Hospital at Concord; Dr. Wm. H. Rockwell, of the Vermont State Hospital at Brattleboro'; Dr. Luther V. Bell, of the McLean Asylum for the Insane at Somerville, Mass.; Dr. C. H. Stedman, of the Boston Lunatic Asylum; Dr. N. Cutter, of the Private Institution at Pepperill, Mass.; Dr. John S. Butler, of the Connecticut Retreat at Hartford; Dr. Amariah Brigham, of the State Lunatic Asylum at Utica, N. Y.; Dr. Pliny Earle, of the Bloomingdale Asylum at New-York; Dr. James Macdonald, of the Private Institution at Flushing, L. I.; Dr. M. H. Ranney, of the Lunatic Asylum on Blackwell's Island, New-York; Dr. G. H. White, of the Hudson (private) Lunatic Asylum, N. Y.; Dr. Horace A. Buttolph, of the New-Jersey Lunatic Asylum at Trenton; Dr. Thomas S. Kirkbride, of the Pennsylvania Hospital for the Insane at Philadelphia; Dr. Joshua H. Worthington, of the Friends' Asylum at Frankford, Pa.; Dr. N. C. Benedict, of the Blockley Insane Asylum at Philadelphia: Dr. Fonerden, of the Maryland Hospital at Baltimore; Dr. Wm. M. Awl, of the Ohio Lunatic Asylum at Columbus; Dr. John M. Galt, of the Eastern Asylum of Virginia at Williamsburg; and Dr. John R. Allan, of the Kentucky Lunatic Asylum at Lexington.

Dr. Samuel B. Woodward tendered his resignation of the Presidency of the Association, which was accepted, and Dr. Wm. M. Awl was elected President in the place of Dr. Woodward, resigned; and Dr. A. Brigham, Vice-President, in the place of Dr. Awl, elected President. The following preamble and resolutions in reference to its late President, were unanimously adopted by the Association, viz.:

WHEREAS, Dr. Samuel B. Woodward, at the present meeting of this Association, has tendered his resignation as President thereof—

Resolved, That whilst accepting this resignation, we cannot adjourn without declaring our high sense of the services of Dr. Woodward as President of this body, and also our full appreciation of his ardent and useful exertions for so many years in behalf of the unfortunate insane.

Resolved, That the Secretary of the Association be requested to transmit to Dr. Woodward a copy of this resolution.

Agreeably to appointment, Dr. Brigham read an obituary notice of the late Dr. White, of the Hudson Lunatic Asylum and the first Vice-President of this Association, which was directed to be entered upon the minutes.

Dr. A. V. Williams and Dr. Benjamin Ogden, two of the visiting physicians of the Asylum on Blackwell's Island, were invited to attend the sittings of the Association; and a resolution was adopted, authorizing each member to invite any person interested in its discussions.

In conformity with a resolution, adopted at the last meeting of the Association, Drs. Brigham and Macdonald made written, and Drs. Earle, Rockwell, Bates, Butler, Allan and Kirkbride, verbal reports on the subjects of post-mortem examinations and the pathology of insanity, which, after consideration, were referred to the standing committee on these subjects.

Dr. Kirkbride read a report from the committee on publication, which was accepted, and the Association subsequently resolved, That the committee on publication, appointed at the last meeting, be continued, and instructed to publish such of the reports and such parts of the reports made to this Association, and such parts of its proceedings as they shall deem conducive to the public good.

Elevations and ground-plans of many of the institutions for the insane in the United States and Canada were laid upon the table, for examination by the members of the Association;—also a great variety of carving and fancy work made by patients in the New-York State Asylum,—and a number of ingenious buckles and other improved fixtures, intended to be employed on restraining apparatus, and sent to the Association by the maker, John D. Fisher of Philadelphia.

Written reports were made on the following subjects, and after full discussion accepted, and laid upon the table, subject to future disposition by the Association, viz.—

On the comparative value of the different kinds of labor for patients, and the best means of employment in winter, by Dr. Rockwell; on the advantages and disadvantages of cottages for wealthy patients, adjacent to hospitals for the insane, by Dr. Kirkbride; on the relative value of the different kinds of fuel, for heating hospitals, by Dr. Bates; on the most economical mode of treating the insane of the poorer classes, by Dr. McFarland; on reading, recreations and amusements for the insane, by Dr. Galt; on the comparative value of treatment in public institutions, and private practice, by Dr. White; and on the effects on the insane, of the use of tobacco, by Dr. Cutter.

Remarks on the diseases and causes of death among the insane, were also read by Dr. Macdonald; on the statistics of insanity, by Dr. Earle; and a series of cases of manio-a-potu, treated by the inhalation of ether, in the Boston City Hospital, by Dr. Stedman.

Invitations were received and accepted, to visit the Bloomingdale Asylum, under the care of Dr. Earle, and the private Institution at Flushing, L. I., under the care of Dr. Macdonald; and both institutions were subsequently visited, and examined with great satisfaction, and the thanks of the Association tendered to these gentlemen for their courtesy, attention and bountiful hospitality.

The Association also accepted an invitation to visit the Asylum on Blackwell's Island, and after a thorough examination of the buildings and arrangements, unanimously adopted the following resolutions.

Resolutions respecting the Receptacle for Pauper-lunatics at Blackwell's Island.

The "Association of Medical Superintendents of the American Institutions for the Insane," holding their third biennial meeting in this city, have availed themselves of the kind invitation of the civil authorities superintending the receptacle for the pauper lunatics of this great metropolis, at Blackwell's Island, to visit and examine the unfortunate class there resident, and the provision made for their care, their amelioration, and their recovery.

It would be far more grateful to their feelings, could they leave this, as they do the other asylums for the insane, in this vicinity, which they have also examined, in silent but respectful regard at seeing great objects properly accomplished. In so doing, they would escape the unpleasant necessity of instituting painful criticisms in the face of personal civilities, and the hazard of being considered, by the unreflecting, as guilty of improper interference in the affairs of a community not their own.

Devoted as most of them have been for many long years of their lives to the care and restoration of those deprived of reason; familiar, as many of them have been from personal examination, with the condition of this class of sufferers under the varying circumstances of the different communities of the old and new world; looking upon themselves, while citizens of widely separated states, yet common denizens of that republic of humanity that knows no state lines, they willingly venture all risk of being misunderstood and misrepresented, when they declare their conviction, that the arrangements for the three or four hundred pauper lunatics of this city are far in the rear of the age, of the standard of other regions equally advanced in civilization and refinement, of the imperative demands of common justice, humanity and respect due to the image of a common Father, however much disfigured and changed.

They would, therefore, appeal to the authorities of this mighty and opulent metropolis of the western world, to sustain the honor of their leading position; to those who must feel that they and their children have no immunity against loss of property, of friends, and of reason, to those who recognize the obligations imposed by their own elevation and success to protect the friendless and miserable, to interpose their determined resolution no longer to permit the Empire City to stand below the demands of the age, in the justice, humanity, yea, in the common decency, with which those guilty of no crime, but stricken by the hand of Providence in the loss of reason, are treated. Suffer no longer, we implore you, those whose sensibilities are not extinguished, but may even be more intense, whose honest self-respect and pride of character is not always permanently obliterated, whose return to society and to usefulness is not elsewhere the rare exception, but the expected result; to be abandoned to the tender mercies of thieves and prostitutes, who are to a considerable extent, the associates and keepers of this helpless charge, and clothed with all the delegated authority and influence, which such a relation necessarily implies.

This association has neither the means nor disposition to inquire why the pauper lunatics of this community should have been allowed to lapse into that depth of degradation and neglect, of which it would be difficult elsewhere to find a parallel.

Enough is it for them to know, that such is the fact, notwithstanding plans and designs for every modern architectural requirement, as well as curative and ameliorating appliances, have been long in the hands, and subjected to the favorable criticism and comparison of those elsewhere charged with the same duties, and have been recognized as fully adequate to meet the exigency.

They have examined the recent report of the medical visitors, and conclude with them fully in their conclusions, as to the necessity of an entire change in the system; in the impossibility of doing all that justice, humanity, and a sound economy require for the insane, except at a cost of money sufficient to provide faithful, competent, respectable assistants or keepers, and adequate means of classification, inspection, labor, amusement, ventillation, and cleanli-

ness. They believe a just economy requires the abandonment, or conversion to collateral uses merely, of those miserable apologies for insane hospitals, known as the old and the new *madhouses;* and that if the island is retained as a site for these institutions, the original design fully satisfactory in its great outlines and principles, should at once be carried out to completion.

The following preamble and resolution were adopted by the Association, viz:

WHEREAS, in the selection of medical superintendents to American institutions for the insane, it is important to choose men with the highest qualifications, both as respects professional acquirements and moral endowments, therefore,

Resolved, That any attempt in any part of this country, to select such officers through political bias, be deprecated by this Association as a dangerous departure from that sound rule which should govern every appointing power, of seeking the best men, irrespective of every other consideration.

The following resolutions were also adopted during the different sessions of the Association:

Resolved, That a committee be appointed to report to this Association, at its next meeting, the best terms for the classification and designations of the different forms of insanity, and also the best anatomical and pathological terms for the various parts of the brain, and a nomenclature of the diseases which prove fatal to the insane.

Resolved, That a committee be appointed to suggest the best plan of calling the attention of physicians in general practice to the proper treatment of the insane at their homes, and especially to their treatment during the first period of their disease.

Resolved, That the members of this Association be requested to prepare and present to a future meeting, a statistical analysis of all the cases of insanity which have been admitted into the different institutions under their care.

Resolved, That all subjects heretofore referred to committees and not reported on at this meeting of the Association, be continued in the hands of the present committees for future action.

Resolved, That a committee be appointed who shall, either before or after our adjournment, select subjects and appoint members to report on the same, in writing, at the next meeting of the Association.

Resolved, That previous to the future meetings of the Association the secretary be requested to invite the Boards of Trustees, managers, or official visitors of each insane asylum on this continent, to attend the sessions of this body.

Resolved, That the thanks of this Association be tendered to Messrs. Coleman & Stetson, of the Astor House, for their very liberal provision for the meetings of the Association, and for which, on account of its benevolent objects, they have declined receiving compensation.

Resolved, That the thanks of the Association be tendered to the officers for the able manner in which they have performed the duties of their respective stations.

Resolved, That the Secretary be instructed to furnish an abstract of the proceedings of the Association to the editor of the American Journal of Insanity, and to the editors of the various Medical Journals in the United States, for publication in their respective periodicals.

The Association continued its sessions until the afternoon of the 12th of May, and then adjourned to meet in the city of Utica, N. Y., on the third Monday of May, 1849, at 10 o'clock, A. M.

By order of the Association,

THOMAS S. KIRKBRIDE, *Secretary.*

Medical Society of the State of New-York.—At the last meeting of our State Society, a committee, consisting of Drs. T. Blatchford, T. R. Beck and J. A. Wing, was appointed, "to prepare and distribute a circular to the county medical societies, recommending such measures as in their judgment may be best calculated to advance the interests of the several societies and the medical profession." To the following suggestions, the committee are desirous of calling the attention of the members of the county medical societies.

1. In the first place, we earnestly invite you to the adoption of the code of Medical Ethics, prepared and sanctioned by the authority of the National Medical Convention. Our State has the honor, through the agency of the late Dr. Pascalis, of first bringing this subject to the immediate notice of the profession, but we readily and cheerfully state, that the present code is greatly improved and highly worthy of adoption by all physicians who desire to live and act as gentlemen, men of high morals and liberal education.

2. We are extremely anxious that the meetings of the County Medical Societies should be faithfully kept up and numerously attended. Although the profession is no longer under the special protection of the law, it still has the power within itself, to cause it to be respected and honored, provided its members be true to themselves. Instead then of being merely an executive body, we trust that each and all will devote themselves to the communication and diffusion of medical knowledge—to the cultivation of friendly intercourse, and to the establishment of a character for intelligence and high-minded courtesy.

3. As the State Medical Society is dependent for its utility and advancement, on the attendance of the members (delegates and others) at its annual meeting, we are extremely anxious that the meeting should be as numerous as possible, and characterized by an almost exclusive attention to medical science. There is nothing to prevent all and every practitioner in the State, from taking a part in its proceedings, and we trust that when it is once understood, that the communication of information, either verbal or written, on the various branches of study in our Profession, is to form the main subject of our attention, such attendance will be greatly increased. The proceedings will hereafter be regularly recorded by a professional reporter. We respecfully invite all County Medical Societies, as well as their individual members, to forward everything of interest for publication.

4. Another subject referred to our consideration, and on which we were instructed to address you, is the power of the Medical Society to suspend or expel members for violations of the by-laws or breaches of medical ethics. We are of the opinion that the societies possess the power, and in confirmation, refer to the opinions of Attorney Generals Bronson and Barker, (*Transactions State Medical Society*, vol. 4, Appendix, page 23, and vol. 6, Appendix, page 101.) But we recommend, that in those painful cases which would seem to need such measures, steps be first taken to request the unworthy member to withdraw himself voluntarily. Certainly he cannot desire to belong to a society whose rules and regulations he is violating.

5. The committee next approach a subject, on which they feel an abiding and solemn conviction, that the future welfare and respectability of the Profession must mainly rest. It is the education of pupils, preliminary to entering on the study of medicine. They are convinced, that unless this be made a subject of more special attention by practitioners, all other efforts will be comparatively futile. It is probably in vain to expect that the Legislature will make an enactment to meet this necessity. Those who, in former years, resisted the passage of such laws, and many of whom were of the legal profession, have lived to see all the requisites then demanded of them, also broken down, and we cannot conceal that the retribution is just. But the medical profession, at least, have the power within themselves of repairing the evil, if they will steadily refuse to take any young man as a student, who is not

well grounded in a knowledge of, and in writing the English language, and who has at least some elementary knowledge of Latin and mathematics—one, in fact, who has received such an education as may be readily attained at any of the academies which are scattered broad-cast over the State. It is impossible otherwise that a student can materially profit by medical instruction—that he can understand what he reads, or appreciate what he hears. A good education is indispensable to progress in any department of professional life. If successful, it is gained sooner or latter, and it is needless to add, that in the latter case, its acquisition must be laborious, irksome, and disheartening. We ask the cordial co-operation of all physicians in this important matter.

6. The undersigned are convinced from the experience of years, that the increase of Medical Colleges throughout the Union, has not been conducive to the promotion of medical knowledge, however much they may have aided in its diffusion. It is in vain, however, to attempt an alteration in what would now seem to be a fixed rule, viz., that every State must sooner or later have a Medical College of its own, and every large city one or more. The tendency of such an increase unfortunately is to lower the standard of medical instruction, unless great regard be had to the time devoted to it, and to the proper proofs of its sufficient acquisition. Physicians can do much to check this, by denouncing individual cases of disregard of the rules and regulations for graduation, which nominally are the same throughout the United States, but which, there is too much reason to fear, are often practically disregarded. Until this be done, there will be but little accomplished by arraying the profession against the colleges generally, or requiring the latter to enlarge their labors, with an intimate conviction that a portion at least will disregard the advice and profit by the disregard.

7. We know of no medium of intercourse between the members of our profession in the State, more appropriate, and at the same time more economical, than the transactions as at present published. If the societies and physicians generally will each contribute but a small sum annually, a sufficient number can be struck off, to supply every medical man. And the State Society is prepared to act as agent for this purpose at cost price.

Asking your candid and deliberate attention to the above,

We remain respectfully,

Your obedient servants,

THOMAS W. BLATCHFORD,
T. ROMEYN BECK,
JOEL A. WING,
} *Committee.*

ANATOMY AND PHYSIOLOGY.

ABNORMAL DISTRIBUTION OF THE THYROID ARTERIES.—Prof. James Blake describes in the *St. Louis Med. and Surg. Journ.* (June, 1848), the following case of abnormal distribution of the thyroid arteries, which is interesting from the circumstance that in the subject in which it occurred, neither the operation of tracheotomy nor laryngotomy could have been performed without great danger of sacrificing the life of the individual. The subject in which it occurred, was a male about forty years of age, brought into the dissecting room of the St. Louis University during the past session. The first anomaly that presented itself on dissecting the arteries going to the head and neck, was that of a considerable artery about the size of a quill, arising from the anterior and superior part of the innominata, passing upwards and crossing the trachea about three-quarters of an inch above the sternum. After proceeding about two lines beyond the mesial line, it again turned to the right and crossed the mesial line about a quarter of an inch before the isthmus of the thyroid body, and proceeded to divide into branches along its lower edge on the right side.

On dissecting the superior thyroid arteries, it was found that the artery of the right side arose from the external carotid, at the place where it is generally found; but here it was seen to be much larger than usual; it proceeded downward to the upper and outer angle of the thyroid body, but instead of dividing into its terminal branches, as it generally does, it turned forwards and to the left, running along the upper edge of the cricoid cartilage, or between it and the thyroid cartilage, and lying on the crico-thyroid muscle; it continued this course until it passed rather beyond the mesial line, crossing the crico-thyroid ligament. During its course, it sent branches downwards to the upper edge of the right side of the thyroid body, and the isthmus and its terminal branches were distributed to the left lobe of the thyroid body. The artery where it crossed the crico-thyroid ligament was as large as a crow-quill; there was no large anastomotic branch uniting with the superior thyroid artery of the opposite side, which was rather smaller than natural. The inferior thyroid arteries were natural, but that of the right side rather larger. The thyroid body was rather above the natural size, and somewhat more dense in its structure, and less red than it is generally found—the isthmus was broad, extending as far as the lower edge of the cricoid cartilage. From the above description it is evident that neither the operation of tracheotomy nor laryngotomy could have been performed in this subject without incurring the greatest risk of wounding an artery, the bleeding from which might, under the circumstances, even have led to a fatal result.—*Amer. Jour. Med. Sci.*

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Corpora Menstrualia,—*A case in which this body was found in Process of Formation, coinciding with Menstruation.*—(*Charleston Med. Jour. and Rev.*, Jan. 1848.)—Dr. Myddleton Michel has recently published an article "*On the Dependence of Menstruation upon the Development and Expulsion of Ova*," from which we abstract the following case.

The subject was a woman convicted of murder, and executed on the 16th of September, 1847. A post-mortem examination was made by Drs. Gaillard, De Saussure and Cain, in the presence of Dr. Michel, who requested that the internal organs of generation should be closely inspected. Dr. M. gives the following particulars of the result of that inspection, together with his opinion on the same.

Upon the removal of the uterus and its appendages, we remarked that there was no perceptible increase of size in the parts, though evident signs of congestion were detected, particularly in the tubes. The mouth of the uterus was slightly opened, tumefied and its orifice dripping with blood. A vertical incision being made through the organ, the internal surface was found coated with blood, though the congestion of its mucous lining membrane was particularly confined to the upper part, about the entrance of the tubes. The stroma of the ovary of the right side presented a number of vesicles working their way towards the surface, and on the surface one or more vesicles, in progress of development, containing a quantity of clear fluid which was ejected with much force as they were opened. In the ovary of the left side several others were also present, but on the anterior surface we discovered a ruptured graafian vesicle, whose orifice was partially closed by a clot of blood. This was evidently the one which had just discharged its ovulum. But being unprovided with proper instruments, by the mutual suggestion of Dr. Gaillard and myself, I took this rare specimen with me to examine it carefully.

I apprehend I can clearly establish, from the condition in which I found the vesicle, that Jane was not pregnant, and that menstruation had only began a day or two. She was incarcerated some weeks previous to her execution, and her anxiety and suspense before she was apprehended, inclines one to believe that her every thought must for some time have been directed to her ap-

proaching fate. But a better argument is furnished by the vesicle in question, for its rupture had positively just occurred, and here are the proofs: the opened vesicle was only partly closed by a clot of blood; the granular membrane surrounded this, even protruding through the opening. Under the microscope a fragment of this membrane exhibited its usual appearance of little hexagons arranged like mosaic work. I called the attention of Drs. R. Motte and Hunt to this membrane, who were present when I examined it. Cutting through the vesicle, I found its large cavity filled with the clotted blood which is the immediate cause of its rupture, and removing this coagulum, the inner tunic displayed great vascularity, its vessels ramifying over its surface like the artery on the retina. This membrane was not yet folding to constitute the corpus luteum.

To those acquainted with the subject, it will be plain that rupture had recently occurred, and consequently that the ovum had not long escaped. I therefore diligently searched for the egg, knowing that if discovered, this would be the only case of the kind recorded. I was not fortunate in the attempt; the egg was in the tubes, but these were so corrugated, (a condition in which all the other organs of like structure participated as perhaps the result of strangulation,) that it was impossible to open them. The surface of the uterus was then carefully inspected with a strong lens, but nothing was discovered. The mucous membrane was not hypertrophied, neither was the uterine crypts nor glands visible as I have seen during this period. I therefore conclude from this point, associated with the fact of the congestion being greatest at the entrance of the tubes, that menstruation had just commenced, and finally that this excitement commences in the ovaries, passes next to the tubes, and then encroaches upon the surface of the uterus. This last remark perhaps is worthy of notice, as I believe it has never been expressed.

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On the Cerebro-Spinal Fluid.—(*Charleston Med. Jour. and Rev.*) Dr. M. Michel has in a recent paper "*On the effects consequent upon the section of the posterior muscles of the neck, with a short history of this fluid,*" questioned the views of M. Magendie. It will be remembered that in 1825, in the fifth volume of the Journal de Physiologie, M. Magendie published his memoir on this subject. The views which he there maintains are as follows, viz.: 1st. That he had discovered the presence of a fluid situated immediately beneath the arachnoid membrane and covering the brain and spinal cord. 2d. That upon the presence of this fluid depended the integrity of the cerebro-spinal axis, and the actions dependent upon it. 3d. That the evacuation of this fluid by incising the soft parts across the posterior occipito-atloidal region and puncturing the membranes is followed by the greatest possible disturbance of station and progression. 4th. That the object of this fluid is the maintenance of a due and uniform pressure upon the entire nervous centre, whereby the regular movements of the animal may be effected. Since that period the experiments of M. Magendie have been frequently repeated and their repitition has tended to confirm his views. In 1845, M. Longet, assisted by Dr. Michel, "discovered that the abstraction of the sub-arachnoid fluid exerted not the slightest influence over the order of motion, and that the remarkable physiological effects observed, were not to be ascribed to the removal of any pressure, but to the sudden occurrence of unaccustomed compression." The experiments from which these deductions were drawn, consisted in the division of the posterior muscles of the neck, including all the soft parts, and particularly the lesser recti muscles, (care being taken not to injure the protective envelopes of the cord or fluid within.) On doing this, the animal's head drops powerless

over the chest, at first moves forward with a degree of caution evincing the insecurity of his movements, when, upon being aroused to a sense of any impending danger, he totters, staggers and falls, soon to pass into an oblivious calm or lethargy, from which, however, he recovers after a lapse of a few hours, regaining control of every voluntary act. This latter effect has (our readers will remember) always followed the abstraction of the cephalo-rachidian fluid, and the experimenters sought an explanation of the restoration of equilibrium in the rapid secretion of the fluid. It was these facts which led M. Longet and Dr. Michel to question the correctness of the conclusions of M. Magendie. Their plan of proceeding after this, and the results which followed, were as follows:

Making a narrower incision over the middle dorsal vertebra, and removing the arch, the membranes were opened, and the liquid drawn off; the animal abandoned to itself, was now able to direct its voluntary motions, and walked well, with the exception of a tendency to drag his hind quarters, owing to weakness produced by the wound. In addition to the liquid thus obtained, a much larger quantity was removed by momentarily interrupting the animal's respiration, though it might still be objected that sufficient remained to account for the non-appearance of the expected results; therefore, an ingenious experiment was contrived, whose object was to extract the liquid at the point of elevation, that is, between the occiput and atlas, and yet to isolate entirely the effects from those brought about by the section of the muscles. This was effected, first, by making the sections as usual, and witnessing the disturbances which followed, and on the next day when the animal had completely recovered from its effects, opening the envelopes of the spinal cord by a large incision and evacuating all the fluid; after this additional procedure, however, no perceptible difference was noticed, the animal continuing perfect master of its movements. This then was the desired proof, exhibiting the egregious error of prevalent opinions on this point.

It remained to confirm these observations on other animals beside the dog, accordingly they continued their experiments on the cat, sheep, rabbit, guinea-pig and horse; on numerous birds, also, but on none of them are these results induced, unless it may be among the large and heavy bills—ducks, &c. On reptiles, whose long diameter of the head is situated almost in the same plane with the vertebral column, Dr. M. discovered no marked variance of motion, a circumstance which he afterwards attributes to the extreme shortness of the neck, which forms a supporting cushion to the head, and which did not fall pendent after the section. As to the cause of the phenomena which followed these experiments Dr. Michel remarks:

"It cannot be regarded as a loss of equilibrium, occasioned by the pendent position which the head immediately assumes. This was my first suggestion to M. Longet, upon witnessing the occurrence, but he answered by the objection, that animals whose heads were forcibly bent forwards over the sternum, and retained in that position by bandages, were able to move about as usual. We also know that if a dog's leg be cut off or paralyzed, the animal will immediately recover its equilibrium, by placing itself in a somewhat different position. This fact is again illustrated in dogs, after securing the aorta at its lower part: their hind legs become entirely paralyzed, and they instantly place themselves in a most remarkable attitude, which consists in walking on their front legs, with their hind quarters turned up into the air. Nor are these phenomena connected, in any way, with disturbance in the

focal distance of the eyes, from a relative change of position of the head, as I also supposed; for no variation in the size of the pupil was recognised, among many other objections which might be advanced. The explanation on the contrary, is found in the sudden and violent compression of the medulla oblongata, occasioned by a separation of the occipnt and atlas; and this pressure takes place just at the point of junction of the peduncles of the cerebellum, interrupting all transmission of its dictates to the cord, and from thence to the muscles under its direction. That this is the correct interpretation, is proved from the discovery, that co-ordination could be restored by raising the head and supporting it in the normal position. The sheep immediately recovered the power of controlling its movements upon my raising its head; the perturbations returning so soon as its head was allowed to fall. On M. Longet's adjusting an apparatus which supported the head, a cat was again experimented on, without a repetition of the usual disturbances. M. Longet further remarked that these unexpected results were in every respect similar to those occasioned by any other compression at the same point in the nervous centre. For example, after the section of the trifacial nerve, behind the gasserian ganglion, it often happens that the point of the knife enters the sinus; the blood which is then effused, compressing the pons, crura cerebelli and medulla oblongata induces the same incapacity to move; the animal rolls over, cannot stand and is drowsy for some time before it recovers; and when such has been its good luck, is again able to resume command of its movements. The recovery from these effects shows the readiness with which the nervous centres become accustomed to any constant pressure; for when this was greatest, in many of our experiments the effects wore off after thirty-six hours."

From these experiments Dr. Michel concludes that the perturbations of motion are not due to the abstraction of the cerebra-spinal fluid, but to the pressure upon the cephalic extremity of the spinal marrow; and the re-establishment of a due balance of motion depends upon the promptness with which the nervous centre becomes habituated to the pressure, and not upon the supposed reproduction of the fluid, and further that these actions bear a strong resemblance to those produced by lesions of the cerebellum owing to pressure upon the crura cerebelli, if we admit the functions of the portion of the encephalon to be such as are advanced by M. Flourens.

PATHOLOGY AND PRACTICAL MEDICINE.

PATHOLOGY OF THE BLOOD IN INEBRIATES. (*Boston Med. & Surg. Jour. for May.*)—A Mr. Thompson, of South Berwick, Maine, aged 35 years, for a long time had been the subject of intemperate habits, being daily accustomed to the use of alcoholic drinks; for five days previous to the examination of the blood, he had been in a beastly state of intoxication; and it was found upon inquiry that he had drank in that time *two gallons* of "West India Rum." At the expiration of the fifth day he called upon Dr. J. C. Hanson, and complained of the usual symptoms of drunkenness. Dr. H. immediately for experiment, sake drew blood from the arm; it was found destitute in a measure of its watery elements. On applying a lighted taper to it, it began to burn with a flame similar to alcohol. Dr. Jewett, and several respectable citizens of South Berwick, were eye witnesses to the experiment. Dr. Pray of Boston, who reports the case, appends the following remarks: It is well known to the medical profession, that liquids, and even mineral and vegetable substances,

taken into the stomach, are shortly found in different parts of the system. Madder, for instance, when internally administered, imparts a like color to the milk, and urine, and to the bones of animals, without materially affecting the healthy action of any tissue, or sensibly deranging the constituent parts of the solids or fluids, unless too long persevered in. But there are very few known cases in which so much alcohol has been absorbed into the system, as to change the chemical qualities of the blood, or so modify it, that its watery proportions should give place to the fluid which has been immoderately indulged in. The case which we have briefly narrated plainly shows that such may be the fact.

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Dissection of a Fungus Hæmatodes Oculi. By W. Clay Wallace, M. D. (*American Jour. of the Med. Sci.*)—To harden the tumor before examination, it was macerated in an alcoholic solution of corrosive sublimate, and after repeated washings it was again macerated in a solution of chloride of zinc. On separating the fissures at the apex, a number of small reddish stems similar to those supporting the minute flowers of a cauliflower, were seen to arise from the mass and support some of the crusts of the fungus. The tumor was opened midway between the apex and the optic nerve, and the encephaloid matter scraped away until the specimen was considerably injured before observing the principal stem.

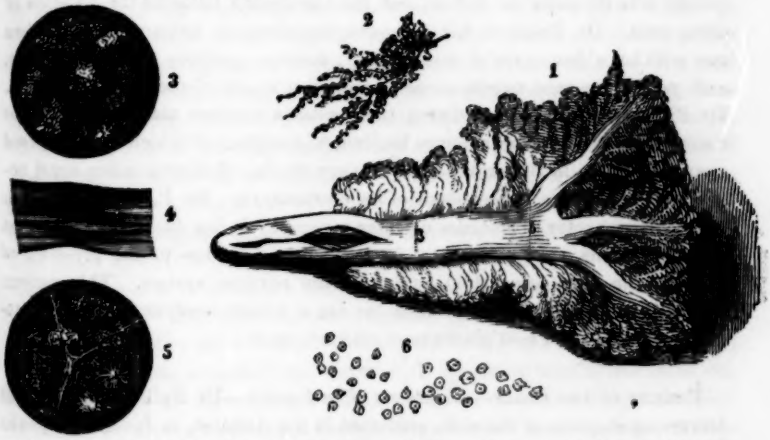

Fig. 1 represents the tumor as it appeared after the removal of a portion of the encephaloid matter. The principal stem or trunk was firm as tendon, and hollow when opened longitudinally. At nearly two inches from its origin, the trunk divided into several branches, from which, and from the trunk itself, the medullary matter proceeded. When the latter was examined with a microscope, it was found to consist of a series of fibres and granules, as represented at fig. 2. Some of the granules (fig. 6), which had fallen to the bottom of the fluid in which the preparation was immersed, exhibited on the application of a higher magnifying power, nuclei and irregular extremities by which they had probably been attached to the fibres. Fig. 3 is a magnified view of a transverse section of the stem at 3 in the first figure. Fig. 5 is a similar section at 5, where it is divided. Fig. 4 is a magnified longitudinal segment.

The appearance of the preparation, which I still possess, favors the opinion that fungus hæmatodes belongs to the class of parasites, as advanced by Kluge

and Meyen, who have endeavored to show that the encephaloid tumor possesses a vascular system of its own.

It has been observed the fungus was mutilated during the examination; this account will, therefore, be regarded as a very imperfect contribution to the pathology of this deplorable disease.

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AZOTURIA.—Prof. Flint (*Buffalo Medical Journal for July*) has presented some of the particulars of a case of this very rare disease. The patient, a German laborer, had suffered for some time from indefinite ailments, such as indigestion, palpitation, neuralgia, pains in the chest, etc.—he has constantly wasted in flesh. On examination of the urine, the specific gravity of the first specimen was found to be 1.030. It deposited no sediment, resembled porter in color, and emitted a very strong urinous odor. On placing a portion in a test glass, and adding an equal quantity of nitric acid, two thirds of the mass became solidified in about thirty minutes. The solid mass presented an appearance of minute crystals, (nitrate of urea)—the same results followed several repetitions of the experiment.

Some time after, a second specimen was examined—it contained a mucous deposit, at first white, but which soon became red. On agitating the urine, the sediment disappeared, and the urine became somewhat turbid. Its specific gravity was the same as before, and the like results followed the addition of nitric acid. Dr. Prout, in his extensive experience in urinary disorders, has met with but a few cases of this disease; diabetes mellitus is a rare disease, and yet he has seen twenty cases of the latter to one of the former affection. Dr. Flint with Dr. Prout believes that azoturia involves mal-assimilation, or disorder of the molecular changes incident to nutrition, of which the increased quantity of urea in the urine is a secondary result. And emaciation must necessarily ensue as a consequence of its continuance. Dr. P. believes that in some cases, azoturia precedes diabetes mellitus. It has been supposed that neuralgic pains, palpitations, etc., in these cases, are due to the presence of urea in the circulating fluid, acting on the nervous system. This patient has derived considerable benefit from the use of a tonic anodyne course of treatment, such as Dr. Prout places most reliance upon.

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ECZEMA OF THE SCALP—*Treatment of, in Infants.*—Dr. Bulkley, in a clinical lecture on diseases of the skin, published in the Annalist, in June last, speaks of the treatment of this affection as follows:

The treatment must depend upon the cause, so far as this can be ascertained, and the general condition of the little patient. When occurring in those of marked strumous diathesis, which predisposes very strongly to it, the indication for general treatment is plain. Remedies to correct, as far as possible, this condition of the system, and especially well directed hygienic means, must be diligently used. In all cases, the gums must be watched, and lanced, if necessary, and the secretions and discharges from the bowels attended to. Arsenic and bichloride of mercury are given in these cases by some; but I have no personal experience in their use. Iodine and sarsaparilla are also used. The former article, if carefully managed, may do good in appropriate cases, but may aggravate the difficulty by causing irritation of the mucous membrane of the stomach and bowels, while the quantity of the sac-

charine matter usually employed as the vehicle for the latter, is apt to derange digestion; besides, that a large proportion of the trash palmed off upon the public under this name, has probably but little, if any, medicinal effect beyond what it often receives from the drugs combined with it, and which sometimes do positive harm. Locally, I am in the habit of directing the application of a poultice to remove the scabs, if there is any accumulation; but care must be taken not to continue the use of these too long, especially in feeble children of a strumous diathesis, as they sometimes cause a secretion from the surface so abundant as to exhaust the strength of the patient. When the scalp is much inflamed, frequent ablutions with some emollient decoction (one of the most convenient and economical of which is that of wheat-bran), or the application of a soft cloth, wet with a weak solution of acetate of lead, will be found of service: afterwards, especially if the surface is relaxed, and there is a tendency to constant exudation, weak astringent washes, or astringent or mildly stimulating ointments, may be applied with care to limited surfaces at a time, when the disease is extensive. Particular care must always be taken to avoid every application which will cause irritation. An oil-silk cap is sometimes of use when there is little or no secretion and the skin is torpid, but has usually not been borne in my experience in these cases.

ANTHROPO-TOXICOLOGIA, *or man-poison*, (from *anthropos*, man, and *toxicon*, poison.)—Under this heading, Dr. C. E. Lavender has reported in the New Orleans Med. & Surg. Jour. for July, the history of three cases which tend to show, "that the secretions or exhalations from some human beings in health, are so virulent and noxious as to cause disease in other healthy persons." The particulars of these cases are as follows: Mr. —— is a man whose cutaneous secretions, especially under excitement, are exceeding offensive and disgusting. He has been the husband of two wives; these two women were at the time of marriage in the prime of life, aged 25, in robust health, of good constitution, and of active, healthful habits. Soon after they came in contact with this man, they began to exhibit the effects of morbific causes. They both became leucophlegmatic, and continued constantly and steadily to decline. The same optic illusions, dimness of vision and perversion of colors, marked the progress of both cases to a fatal termination, in these consists the anthropological facts. The toxicological symptoms in each were the constant and gradual emaciation and waste of vitality, without any apparent fixed disease; the optic illusions, especially the fact of *light appearing scarlet, and white red*, the coincidence of the symptoms under similar circumstances, and the fatal termination. Dr. L. mentions a similar case which in its rise, progress, diagnostic symptoms and results agreed perfectly with the foregoing. In speaking of this case he says:

Persons whose bodies, in a state of health, are capable of elaborating infection, as far as my observation extends, are distinguished by the strong and peculiarly offensive character of their pulmonary and cutaneous exhalations. Although this may not always be the case, yet so signally is it true in the cases before us, that I have heard sensible men say that, in their opinion, it would cause disease in any person who would room with them. I therefore set this morbific agent down in the catalogue of animal poisons, as human infection *sui generis*. What its nature, its essence—from what part of the body derived, and upon what tissue it first makes its attack, are, at present, matters of conjecture. Whether all persons are obnoxious to this poison, or whether there is a peculiarity in some, rendering them more susceptible of its

action than others, time and observation must decide. In the cases above noted the noxious cause evinced its power by depressing the vital energies, impoverishing the vital fluid, and deranging the sensorium. There are, doubtless, instances in which the infection, not being sufficiently concentrated or virulent to cause fatal consequences, makes known its existence in the continued bad health and low spirits of its victim. And this, it may be, is the secret why so many hysterical cases are so difficult to be controlled, and why in such cases the experience of our profession finds it profitable to prescribe temporary *absque marito.*

These cases and remarks are exceedingly interesting to the whole profession. We do not remember of seeing the latter spoken of before, and the subject demands of physicians a careful and attentive consideration. We should be pleased to see it thoroughly investigated.

HEREDITARY PREDISPOSITION.—Dr. Ogier (*Charleston Medical Journal and Review*) says: The diseases arising most commonly from hereditary predisposition, are scrofula, consumption, gout, insanity, asthma, angina pectoris, epilepsy, apoplexy, amaurosis and cancer. These by many authors are called hereditary diseases; but as this term is not exactly correct as applied to them, it would be as well here to draw a distinction between *hereditary disease* and *hereditary predisposition.* There are cases in which the disease seems to have been transmitted directly from the parent to the fœtus, as in an instance related by Mr. Hey, of a child having been born with syphilis, whose mother had never been diseased in the genital organs, but had contracted the disease in the *nipples during a previous confinement,* by an infected nurse drawing them —the disease had never been eradicated from the system of the mother, and when the second child was born it was found diseased. Dr. Jos. Brown, also relates his having found tubercles in the lungs of still-born infants, whose parents were consumptive. These then, are cases where the *disease* may be called *hereditary*—where the embryo may be supposed to have received a morbific principle, or the seeds of disease, with the principle of life, or commencement of its existence. The child here, if born alive, has the *disease already developed.* In hereditary predisposition, the child is born healthy, and frequently is not affected by disease until a late period of its life. Scrofula generally appears early in life; consumption about puberty; gout after puberty; amaurosis and cancer, especially in females, later in life, generally about or soon after the cessation of the menses.

As regards the practical application of our knowledge of hereditary predisposition, we think it may be usefully applied to many cases of disease, which come under our treatment. Some of these diseases we know, require an exciting cause to develop them, and knowing these causes, we have it in our power frequently to avoid them or correct them. To the scrofulous for instance, we would prescribe a mild climate, warm clothing and nutritious and invigorating diet. To the gouty, rigid temperance, regular exercise, &c., and so on in many other diseases, depending upon exciting causes, and even in some of those cases which become developed without the aid of any external cause, we may remedy the defect in early life, and thus prevent future disease, as in malformation of the prepuce by a simple incision, and in the deformity of the ribs and sternum, called pigeon breast, by mechanical pressure.

OPHTHALMIA—*a Sequela of Typhus Fever.*—Dr. DUBOIS, in the Annalist for June last, has called attention to the occurrence of ophthalmia as a sequela of typhus; he gives the particulars of seven cases he has treated for this disease. In six of the seven cases the patients had completely recovered from the fever, their general health was good, and the only complaint under which

they labored was the disease of the eyes. The first symptom noticed by the patient in these cases was *muscæ volitantes* and dimness of vision. Soon after a dull appearance of the iris and cornea could be seen, which was generally followed in a few days by conjunctivitis and sclerotitis, the *iritic zone* (as the pink areola, which surrounds the cornea and is formed by the injection of the sclerotic vessels, is called,) was frequently present. Severe pain over the orbit with intolerance of light is generally present, and lymph effused into the anterior chamber is occasionally seen. The treatment consists in occasional cupping on the temples, small and frequent doses of calomel and opium, and the application of an ointment composed of Ung. hydrar. fort., ℥j., Pulv. gum opii, 3j. Extr. stramonii, 3ij. to the brows and temples. Under this treatment the cases related by Dr. D. recovered speedily.

Pathology of Jaundice.—Dr. Wishart, in the St. Louis Med. and Surg. Jour. for December last, has published his views on this subject; he dissents from the generally-received opinion that idiopathic jaundice is produced by obstruction of the gall-duct, and expresses his belief that icterus is in every instance of gastric origin—that the first link of diseased action is seated in the stomach—that the phenonema exhibited in the course of the complaint, are but pathological effects proceeding from this cause, and that when discoloration of the skin, &c., arises from scirrhus of the liver or chololithus, these are barely symptoms of mechanical pressure, or stoppage of the bile-ducts by an extraneous body, or internal local obstruction, and not pathognomonic jaundice. To prove the correctness of these views, he cites the causes and symptoms of the complaint. Jaundice (says he) may proceed from a variety of causes, physical and mental; depressing passions, as fear, grief, nostalgia, &c., crude and indigestible substances taken into the stomach; miasms of malarious regions, and exposure to a high temperature in moist and unhealthy situations. All these make their first impressions on the stomach. Indigestion with its legion enters, sometimes pain in the left epigastrium occurs, or in the cardiac region, accompanied with eructation of the offending article. But at this stage of the disorder, neither fulness nor tenderness in the right epigastrium is felt. In from two to five days after the pain, nausea and fulness in the region of the stomach, fulness and tenderness in the right as well as the left epigastrium supervenes, with white stools, saffon-colored urine, and yellowness of the skin and eyes. This is generally the train of events. In every case of the disease dyspeptic symptoms have preceded the attack to a greater or less extent—gastric derangement is, invariably, a precursor of the attack. This is the first link in the chain of diseased action, which is extended by sympathy, until every organ concerned in the digestive process is implicated, and their secretory functions either impaired or suspended. The next in the catenation of functional derangement, is the production of depraved chyme, between which, when it reaches the duodenum, and the bile there is no affinity. Hence the bile ceases to flow into the duodenum, not from any obstruction of the duct by viscid bile, biliary calculi, or spasm, but because there is no longer any attraction for it there, and hence the biliary secretion is suspend-

ed. (?) He then proceeds to cite a number of cases in order to illustrate these points, after which he states that a still farther confirmation may be found in the treatment of the disease by emetics and the bitter infusions. The first evacuating the depraved contents of the stomach, and the second by their tonic effects upon the stomach, arousing this viscus to healthy action; after which gastric juice of the proper quality is elaborated, and all the functions of the digestive process rapidly assume a healthy character. Dr. W. closes his paper by deducing the following proposition, viz.: That the proximate cause of icterus is depraved secretion of the gastric juice.

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Cold Plague—*Diseases of the Army of Occupation.*—Dr. T. N. Love, surgeon to the 2d Regiment of Mississippi Rifles, in his *Remarks on some of the Diseases which prevailed in that Regiment during the first six months of service*, published in the *New-Orleans Med. & Surg. Jour.* for July, describes a disease which he has thus denominated. It may, perhaps, be remembered by many of the readers of the Journal, that this regiment suffered most severely during the earlier part of last year, and we now learn more definitely from Dr. Love, that during the first six months of service, this regiment sustained a loss of 201 by disease, and "discharges." The regiment was subjected to severe privation and suffering for some time preceding the occurrence of the disease. The epidemic, for so it may be called, was characterized by the following symptoms. The attack generally came on suddenly, without any premonitory symptoms, sometimes ushered in by a chill, and at other times with a severe pain in the head or some remote part of the body; sometimes livid splotches appeared upon the extremities, not of that petechial or eruptive character attendant upon malignant fever, but seemed to be the result of capillary paralysis; they were irregular in shape, varying in size from a pea to that of a half dollar, presenting no elevation of the skin. Some of the cases assumed the form of congestive fever, ushered in by a long protracted chill, coma, imperceptible pulse, re-action with fever, restlessness, followed the next day with an exacerbation, increased in intensity, and proving fatal the third or fourth day, while others were seized with a chill, weak, frequent pulse, great prostration, heavy weight at the precordia, frequent sighing, and occasionally slight difficulty of breathing; after a short time delirium would set in, the tongue became thickly coated, and the teeth covered with dark tenacious sordes, the patient on the sixth or eighth day would sink into a deep coma, low muttering delirium, opisthotonos, soon after followed by death. When (as in some cases it was the case,) the mucous membrane of the stomach and bowels became affected, it appeared to be more the result of a metastasis than a primary affection. Dr. L. remarks, that in most cases the nervous system received most of the shock through its sentient extremities and by means of the skin.

The main object, therefore, in the treatment was to restore a healthy action of capillary circulation, and enable it to resist the depressing effects of external causes. This was best secured by internal stimulants; brandy and opium were the best articles. The pediluvia with mustard; cataplasms with mustard; heat to the extremities, and friction. In those cases where the lungs

became implicated, clysters were unavailing. It was necessary to husband all the patient's strength, avoid all sources of irritation and causes of debility, and shield the mucous surfaces with mucilages. Depletion, cathartics, emetics and quinine seemed only to aggravate the difficulty. The convalescence was long and tedious.

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Sloughing of the Intestines. *Two Cases—Recovery of one.*—In the *Report of the Proc. of the New-York Path. Soc.*, contained in the Annalist for July 15th, Dr. W. Van Buren mentions the particulars, and presented to the Society the specimen of a portion of the intestine of a patient of Dr. Fell's of this city, of which the following is a brief sketch of its history. A man in good health over-exerted himself in loading a sloop with oysters; three days after, he was attacked with severe pain in the bowels, attended with vomiting; the abdomen soon became tympanitic, and symptoms of peritonitis became well marked. At the end of a fortnight he had in part recovered from the acute symptoms, but still had ill health, diarrhœa and emaciation. Some time after, he was attacked with spasms of the bowels, prostration and stercoraceous vomiting; from this he but partially recovered, being subject for some time to such attacks; and at the end of two years from the first occurrence of difficulty, he was seized with spasm of the bowels, and the attendant symptoms of another attack, after which he passed "something at stool, which was three quarters of a yard long, hollow and red inside, and looked like, and probably was intestine." He then had bloody stools, occasional stoppage of the bowels, after which small pieces were passed per anum; mucous diarrhœa was present after a time, attended by vomiting, and followed by emaciation, and the discharge of pus per anum, and death. The autopsic examination performed by Drs. Darling and Fell, disclosed the absence of all evidence of previous peritonitis—the mass of intestines diminished in length—and around the ilio-cœcal valve and throughout the whole course of the large intestines, thickening and ulceration of the mucous membrane. On blowing up the intestine, a manifest puckering of the mesentery, and evident contraction of the canal where the sloughing portion had been cast off.

Professor Dickson, of the University, on being asked if he had ever met with any instances of a similar kind, stated that he had many years since attended in consultation a lady, who in the collapse of yellow fever, and in a condition of disease apparently hopeless, passed by stool, two portions of intestine, as it was decided to be, by all the physicians in attendance—four and six inches in length. They came away amidst large quantities of black matter, which she also vomited freely. He did not see her till she had sunk into collapse, and was incapable of any definite expression of local suffering, giving token of pain only by almost constant and grievous moaning. Earlier in the attack she had complained of much pain in the bowels, increased on pressure, and for some days was tympanitic. The discharge of these pieces took place on the 7th day of her attack, when she seemed absolutely moribund. She, however, rallied, and after a very tedious convalescence, marked by no special tokens of abdominal derangement, during which, as in many other cases of the epidemic

of that year, there was occasional hemorrhage from the bowels, she ultimately recovered entirely.

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Stricture of the Œsophagus.—*Employment of Nutritious Injections.*—(*Charleston Medical Journal and Review.*)—Dr. Cain gives the particulars of a case of stricture of the œsophagus, attended with ulceration, just above the point of stricture; the ulcer perforated the anterior wall of the œsophagus, and opened into the trachea. Large quantities of pus were discharged for some time previous to death, which led Dr. C. to believe that an abscess of the walls of the œsophagus existed. The autopsic examination showed that it proceeded from an abscess which had formed in the left lung. Repeated attempts were made for the purpose of introducing nutrient fluids into the stomach, all of which proved unsuccessful. Finding this to be the case, Dr. C. resorted to nutritive injections for the purpose of prolonging life. The immediate effect of the injection was to raise the temperature of the body, which had been very much lowered, to quench the thirst, and in some measure, assuage the pangs of hunger. These effects were much more apparent after the injections had been repeated a few times. A singular effect, remarks Dr. C., followed the use of the first injection, which was the establishment of the urinary excretion after it had been suspended for at least forty-eight hours. Having continued the use of the injections for a time, the strength of the patient became so much recruited that he was able to rise from his bed and walk about the room; his cheeks became somewhat fuller, and his eyes from a lack-lustre, assumed a brighter look.

With a view of prolonging life, or of supporting life while we attack the disease, in cases of stricture of the œsophagus, Dr. C. says three measures have been recommended, widely differing in their character.

The first that I shall notice is the operation of œsophagotomy which has on several occasions been successfully performed for the extraction of foreign bodies from the œsophagus. The only instance, so far as I am aware, in which it has been performed for supplying the stomach with food is that recorded by Dr. John Watson, of New-York, in the October number of the American Journal Medical Sciences for 1844. In this case the patient's life was certainly prolonged for a considerable time, as any one may satisfy himself by reference to the article in question.

The class of cases, however, in which this operation is feasible, is certainly of simple membranous stricture, in which by supporting the life of the patient, we are allowed time to dilate the stricture with bougies. In cases in which the ulcers are situated low down, it is evident that the operation would be worse than useless; it would, in all probability, hasten the fatal termination.

The operation of cutting into the stomach, although formidable, is not necessarily fatal, and has been performed a number of times for the removal of foreign bodies which had found their way into the organ by being swallowed. Numerous instances, among which the most remarkable is that recorded by Dr. Beaumont, occurring in the boy Alexis Martin, are to be found in the books in which fistulous communications between the stomach and the external surface of the abdomen, either the result of injury or of disease of this viscus, have existed for years without interfering with the digestive functions or impairing the general health.

The cases in which this operation is admissible are, I conceive, the same as those in which the operation of œsophagotomy is warranted. I shall make a few remarks in conclusion, on the third of the measures above spoken of, viz: that of nutritive injections into the colon, which at least possesses the merit of being entirely free from danger, although life may not be so far prolonged by it as when either of the other operations are performed and food is introduced into the stomach, and this for the obvious reason that the digestive process, if it goes on at all in the large intestine, must necessarily be very imperfect. Here that elaboration of the alimentary mass by the fluids of the stomach and the saliva into the chyme cannot take place. It is probable that it is chiefly by the physical endosmotic movement, or imbibition, that the substances thrown into the large intestine find their way into the venous system. It has been well ascertained that pectine, gum, sugar, soluble albumen and gelatine, if in a state of perfect solution, are immediately absorbed by the veins of the stomach, and we see no reason why the same process should not obtain in respect to the large intestine.

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That injections, composed of certain nutritive substances in a state of perfect solution, are instrumental in prolonging life, numerous cases scattered through the books fully attest. The longest term during which life was supported by these means, so far as I am aware, is that recorded by Mr. Ormerod, of a patient about 20 years of age, who was admitted into St. Bartholomew's Hospital, under the care of Mr. Lawrence, with his pharynx opened and the glottis exposed. He was unable to articulate and vomited frequently through the wound, for an hour and a half, fluid mixed with blood. On the second day he had an enema of milk. From the second to the forty-first day, he took daily, in three enemata collectively, two pints of broth made from rather more than one pound of beef. His hunger was always appeased by the enemata. When his bowels were confined some salt was added, which was sufficient to open them. Once some wine was added to the injection. On the forty-first day the injections were omitted, and food was given by the mouth. On the fifty-first day the wound was nearly healed, and the man looked well and in tolerably good condition.

SURGERY.

STATISTICS OF AMPUTATIONS. By H. W. BUEL, M. D.—(*American Jour. of the Med. Sci.*)—Dr. Buel, Resident Surgeon of the New-York Hospital, has collected and arranged in the form of tables, the results of all the amputations which have been performed in the New-York Hospital, for a period of nine years previous to January 1st, 1848. From these tables, it appears that the whole number of amputations performed during the period mentioned, was ninety-one, of which, twenty-six were fatal; making the mortality 28·57 per cent. The following is Dr. B.'s summary of the character and results of the operations.

Of amputations at the hip-joint there was one, and that fatal.

Of amputations of the thigh, the whole number was thirty-four, of which ten were fatal; making the mortality 26·47 per cent.

At the knee-joint there was one amputation, and that fatal.

Of amputations of the leg, the whole number was twenty-four, of which seven were fatal; making the mortality 29·16 per cent.

Of amputations at the shoulder-joint, the whole number was nine; of which four were fatal; making the mortality 44·44 per cent.

Of amputations of the arm, the whole number was eleven, of which none were fatal.

Of amputations of the forearm, the whole number was thirteen; of which three were fatal; making the mortality 23·07 per cent.

So that we have sixty amputations of the lower extremity; of which nineteen were fatal; making the mortality 31·66 per cent.

While of thirty-three amputations of the upper extremity, seven were fatal; making the mortality 21·21 per cent.

With regard to the methods employed in these various operations, the reports of the cases do not, in every instance, specify the method; but in forty-nine cases, (the whole number in which it is specified,) twenty-four were performed by double flap operation, and twenty-five by circular operation. Of the first number, four were fatal; making the mortality 17·66 per cent. Of the last, three; making the mortality 12 per cent.

Of the double-flap operations, there were fifteen of the thigh, of which two were fatal; three of the leg, of which one was fatal; four of the arm and one of the forearm, of which none were fatal.

Of the twenty-five circular operations, six were of the thigh, of which none were fatal: fifteen were of the leg, of which three were fatal; three were of the arm, and one of the forearm, of which none were fatal.

Secondary hemorrhage occurred in only one of these forty-nine cases, and in that, it occurred twice.

There were, in the whole number, two other cases, making, in all, three cases of secondary hemorrhage. The greater mortality of the flap operation may, perhaps, be attributed to the greater proportion of thigh amputations performed in that manner.

As to the question, whether primary or secondary amputation is preferable, it is evident, that an equal number of similar cases should be selected from each class, in order to institute anything like a just comparison. It is customary at the New-York Hospital, when amputation is demanded after severe injuries, to operate before the accession of inflammatory action. So that, strictly speaking, the occasions for secondary amputations will be comparatively rare.

Of the whole number of amputations, sixty-two were the result of injuries, and were fatal in nineteen cases; making the mortality 30·64 per cent.

Of these, thirty-six were primary amputations; of which there were of the hip-joint one, and that fatal; of the thigh, seven, of which four were fatal; of the leg, twelve, of which five were fatal; of the arm, seven, and of the forearm, five, of which none were fatal. Making the mortality 27·77.

The remaining twenty-six amputations may all be said to have resulted from injuries of a more or less severe character.

Of this number, eleven were amputations of the thigh, of which three were fatal. At the knee-joint, one, which was fatal; of the leg, seven, of which one was fatal. At the shoulder-joint, five, of which three were fatal; of the arm, one, and of the forearm, one, of which neither was fatal; making the mortality 30·76 per cent.

The number of operations for various chronic affections was twenty-nine, of which six were fatal. Of the thigh there were eighteen, of which four were fatal. Of the leg, five, of which none were fatal; of the arm, three, of which none were fatal; of the forearm, four, of which two were fatal. Making the mortality 20·67 per cent.

The ages of the patients operated upon were as follows:—

Under	10 years of age,	4,	of whom	1 died.
Between	10 and 20,	11,	"	1 "
"	20 and 30,	32,	"	12 "
"	30 and 40,	21,	"	5 "
"	40 and 50,	11,	"	4 "
"	50 and 60,	9,	"	2 "
"	60 and 70,	2,	"	0 "
"	70 and 80,	1,	"	1 "
		91		26

The whole number of females was 9, of whom 3 died.

Medical Treatment of Cataract.—Dr. James Bryan, (*Med. Exam. for July,*) from a series of observations made in public and private practice, has been led to believe that cataract in some forms at least, and particularly in its early stages, is curable without the aid of operation. His views as to the origin of cataract were first derived from an examination of the eyes of animals, which had been suspended in the ordinary way, after being killed by the butchers, the eyes of the calf were invariably found to contain the lens in a greater or less degree of opacity. This condition he attributes to a state of engorgement; the necessary result of the suspension. From these facts he is led to believe that engorgement of the capsule of an inflammatory character is the producing cause of cataract. With this view of the nature and cause of the affection, (says he,) I was prepared to stop the growing, and perhaps remove the already formed opacity of the lens, by antiphlogistics, counter-irritation, and alteratives. The treatment which is proposed consists in the use of general blood-letting if the pulse be strong and full; if not, leeches to external angles of the eyes, blisters to the temples, free catharsis at first, and the action upon the bowels, kept up by the use of senna and sulphate of magnesia; the eyes to be covered with a green shade, and the patient to remain in a dark room. After this treatment has been continued for a week or so, blue mass should be resorted to in three grain doses, three times per day, until the gums are touched; the blisters to the temple or back of the ears to be kept discharging by the use of an ointment consisting of Ung. resinæ, ℥j., with Cerate cantharides, 3j., applied to the blistered surface. Several cases are detailed illustrating the success of the treatment, which by-the-by, is directly opposed to the opinion of Mr. Lawrence, who says, "the opacity of the capsule and lens, constituting cataract, cannot be changed by any treatment hitherto discovered." Certainly, the success of Dr. Bryan's cases, should induce a trial of the plan in similar cases.

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Fissure of the Soft and Hard Palate.—(*Buffalo Med. Jour.*)—Prof. Hamilton has given an analysis of a memoir recently published on this subject, by J. M. Warren, M. D., whose success is extraordinary if not unequalled. Having had twenty-six cases, twenty-three of which were complicated with fissure of the hard palate—twenty-five cases where the operation proved completely successful. "Roux, we believe, succeeded with only one out of three." Dr. Warren's operation, remarks Prof. H., is original in several points.

1st. He relieves both the fissure in the soft and hard palate in a single operation.

2d. In cases of wide cleft, he cuts through the posterior pillar of the soft palate, and thus allows the edges to be brought more easily into contact. A similar process was suggested by Ferguson, in 1845, but the cases of Warren had precedence.

3d. The patients are allowed liquid food in the quantity required, by which the sufferings of the patient are not only greatly diminished, but the dryness of the fauces being prevented, the violence of the inflammatory process is greatly abated.

In one case, after cutting the posterior pillar, a troublesome hemorrhage oc-

curred. In all of the cases a small opening remained after the wound had healed at the angle of the fissure, but this was subsequently closed by repeated applications of the nitrate of silver, &c.

In the conclusion of the pamphlet is an appendix on the subject of "early operations for hare-lip," of which he is a strenuous advocate. Dr. W. has repeatedly operated when the child was only twenty-four hours old! He prefers interrupted sutures to pins, and recommends a straight needle.

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Dislocation of the Femur; *Post-mortem appearances on dissection.*—Dr. Fenner in the *New-Orleans Med. and Surg. Jour. for July*, gives the particulars of a dissection of the hip, of a fireman admitted into the Charity Hospital, who died from fatal injuries received by the bursting of the boilers of a tow-boat three days after the receipt of the injury—his condition being considered altogether hopeless, no attempt was made to reduce the dislocation. The luxation was upwards on the *dorsum ilii* of the left side; the limb was shortened about an inch and a half, and the toes were turned inward. Extensive ecchymosis was found around the joint, along the fascia superficialis, and among the muscles as low as the knee. On raising the glutæus maximus and medius, the naked head of the femur was exposed lying on the dorsum of the ilium with the *ligamentum teres* hanging to it; a partial separation of this ligament from the head of the femur existed. The head of the femur, in being forced upward and outward, had ruptured and lacerated a portion of the obturator externus, pyriformis, and gemini muscles. After all the external muscles about the joint had been dissected up, the thigh could not be brought down; the iliacus and psoas magnus were then severed, these allowed it to descend a little, but the head could not be replaced. The triceps adductor was then divided without effect. The ilio-femoral ligament was found tensely stretched; all the muscles between the pelvis and the thigh were then severed; no obstacle to the complete extension of the limb now existed, "*yet it was found impossible to replace the head of the femur into its proper position. It could not be forced back through the aperture in the capsular ligament out of which it had passed.*" To one half of its extent the capsular ligament was ruptured, and the opening "*had to be enlarged from one half to three quarters of an inch before the head of the femur could be put back into the cotyloid cavity:*" here lay the chief obstacle to the reduction of the dislocation.

The particulars of this case are exceedingly interesting. They show that in this instance at least, the muscles would not have been the chief cause of resistance to a reduction of the dislocation; they also show that the capsular ligament, although strong and fibrous, possesses "sufficient *elasticity* to allow the smooth head of the femur to pass out through a lacerated opening which might at once contract, so as to offer considerable resistance to its return. These, it will be remembered, are very different views from those held by many of our best authorities. Dr. F., with due deference to the opinion of Sir Astley Cooper and others, believes that the "capsular ligament may often cause much difficulty in reducing dislocations of the hip-joint."

MIDWIFERY.

LABOUR WITH QUADRUPLETS.—(*Illinois and Indiana Med. Jour.*)—Dr. Welch reports a case of quadruplets where the labor set in at the close of the seventh month of gestation. The patient at the time of labor was suffering from extreme anasarca of the lower extremities, and great œdema of the labia pudendum. While the labor was going on, several small punctures were made in the labia by means of the lancet, from which a large quantity of serum flowed. The labor had been apparently near its termination for several hours, when suddenly two fœtuses, in appearance of about six months' growth, were expelled, one after the other. One was somewhat decomposed, and the other barely showed signs of life. Soon after, in searching for the after-birth, the fingers of the accoucheur felt the membranes of a third, which was soon delivered by the feet; this was in appearance at about the seventh month; it was still-born, but was resuscitated by means of artificial respiration. A few minutes after, the head of a fourth child presented, and delivery was soon completed; this was more vigorous than the other. The two double placentæ were then "extirpated." (?) There was some hemorrhage, but it was speedily arrested. The first two were girls; the last two, boys.

DYSMENORRHŒA.—Dr. H. J. Holmes, of Mississippi, has recently written a letter to the editors of the New-Orleans Medical and Surgical Journal, in which he states that the congestive, plethoric or inflammatory form of dysmenorrhœa is easily managed by a well-directed course of treatment. It is only in the *irritable form* that so much difficulty is encountered, and which has been generally considered incurable. The object of the letter is to throw some light upon the subject of the treatment of this disease, and propose a remedy which never fails to relieve pain, and if continued, will establish the *period*, and make it regular, free and healthy. The frequent trials I have made with it, says Dr. H., in all the forms of dysmenorrhœa, and particularly in the neuralgic or irritable, has convinced me that it acts specifically upon the uterus, in relieving pain and spasms, increasing the flow, dilating the canal, and permitting coagula or membranes to pass without the least inconvenience. The remedy has been tested fully in a case which I now have under treatment. The patient has irritable dysmenorrhœa, accompanied with convulsions, and dependant upon ulceration of the canal and os uteri; the pain has been entirely relieved, but the ulceration still remains, the cure of which I intend to effect by means of the caustic.

The prescription is as follows:

℞. Gm. Camphor, 3ijss.
Ext. Belladonna,
Sulph. Quinine, āā 3ss.
M. ft. et divid. in pil. No. 80.

These pills are to be taken only at each period, and at the commencement of pain. Dose, two every hour until the pain ceases. In extreme cases, they may be given during the intervals of the periods, say one pill two or three times a day.

[We have been in constant habit of using the above combination both in public and private practice for the last three years, and know it to be a valuable remedy in irritable dysmenorrhœa. We do not remember of seeing it in print before.—Ed. Jour.]

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Treatment of Retroversion of the Uterus.—By Prof. Evans (*North-Western Medical and Surgical Journal.*)—The *treatment* of retroversion, as a general rule, is plain and easy, in all cases of recent occurrence. The indications are, to replace the uterus, retain it in its natural position, and meet any irritation or inflammatory symptoms by their appropriate anodyne or anti-phlogistic remedies.

The facility with which the first indication can be fufilled, will depend, to some extent, upon the size of the uterus, the capacity of the pelvis, the amount of inflammation, the condition of the rectum and bladder, the length of time that has elapsed since the displacement occurred, and the formation of adhesions between the uterus and other pelvic viscera, the most liable seat of which is between the fundus and the rectum.

If it be a recent case, there need be no fear of adhesions, and the reposition should be attempted at once. Before proceeding to the fulfilment of this indication, the condition of the patient, in reference to irritation, fever, and inflammation, should be carefully observed. And, in case much evidence of irritation be present, either it should be allayed by the administration of an anodyne, or the chloroform or ether should be given.

If symptoms of inflammation, or if much fever be present, the operation may be safely premised by a free bleeding, in which case, also, on account of the tenderness of the parts to pressure, and the consequent pain produced, will it be more particularly advisable to use an anæsthetic agent. After evacuating the bladder by the use of the catheter, which will sometimes be a little difficult of introduction, on account of the pressure upon the urethra, but by using a male gum-elastic catheter with a stiff stilet, this can be pretty readily overcome, and the catheter can be passed up as high as is necessary, and after procuring a passage from the bowels by an injection, the attempt at reposition may be made.

In some cases this may be effected simply by pressing the fundus through the vagina upward, with one or two fingers, while the patient rests on her knees and breast, to remove the pressure of the abdominal viscera from the uterus, and prevent bearing down.

If this does not succeed readily, I would not pass the finger into the rectum as advised by some, for by it there would be no advantage over the former effort; but I would pass the hand at once into the vagina, and this can scarcely fail of success. The advantages of this procedure are plain; first, by distending the vagina laterally, it is contracted longitudinally, which has a tendency to draw the os tincæ down; second, by the whole hand the uterine tumor can be supported and pressed up by a much broader support than any other means, and hence there is less liability of disturbing the attachments of the ovum and producing abortion; third, with the hand introduced, you can carry the fundus up as far as is necessary for complete reposition.

If the retroversion be of long standing, the reposition must be made with much care, lest, if adhesions have formed, lacerations may be produced. Of this, the experienced operator can judge by the amount and manner of resistance offered to reposition. In such cases, attended with pregnancy, the only chance for relief is in abortion, which will often come on spontaneously, or in consequence of efforts at reduction. In some cases it is advised to rupture the membranes, and where the os uteri cannot be reached for this purpose, Dr. Hunter advised to evacuate the liquor amnii by puncturing the uterus through the vagina or rectum, with a small trochar and canula. This has, in several instances, been successfully practised. Where the uterus is bound down by

adhesions, it is better to let it be than run the risk of producing a more serious injury, by attempting to break them up.

After it is replaced, the uterus will generally remain in its proper position, if the causes that produced the displacement be sedulously avoided. Distention of the bladder and active exertion should be especially guarded against.

Where the uterus is growing from the development of an ovum, it will soon be too large for a recurrence of the malposition to be possible. Under other circumstances, the use of a pessary may be serviceable, by distending the vagina laterally, and contracting it longitudinally, thus holding the cervix uteri down, and by filling up, to some extent, the space in the cavity of the sacrum, into which the body of the uterus inclines to descend.

When debility attends the displacement, appropriate tonic treatment for it should be adopted.

Uterine Hemorrhage.— Prof. Linton, one of the editors of the *St. Louis Medical Journal*, has, in the last December number of that Journal, proposed a novel mode of treating this difficulty. It consists in the application of bandages to the legs, commencing at the foot and extending to the hip. He furnishes the particulars of a case thus treated. A lady of previous good health and robust constitution, soon after the delivery of the placenta, was seized with a profuse and alarming hemorrhage; some delay occurred in obtaining ergot, during which time a firm clot from the vagina and uterus was cast off. The state of the patient now became extremely alarming, although the uterus was tolerably firmly contracted; "the general system was *already* in a state of prostration, from which I feared it would be difficult to arouse it;" the bandages were immediately resorted to, a decided improvement in the condition of the patient was soon evinced, "and in half an hour I was able to leave her without apprehending danger." His colleague Dr. McPheeters has also witnessed its beneficial effects in a case of severe hemorrhage which occured during a miscarriage; he states that two or three moments after the application of the bandage the state of the pulse exhibited a decided improvement. The patients in each instance expressed themselves decidedly relieved by their use.

Dr. L., in closing the report of his case, remarks, "it is not necessary to discuss the mode in which it acts as every one will see that it is by supplying the general system with blood from the legs." Dr. McP. says, "it is not unreasonable to suppose that six or eight ounces of blood may in this way be supplied to the general system, and to that extent the drooping powers of life sustained, while other remedies are brought to bear." Certainly their application can do no harm, and in many cases of extreme exhaustion we have no doubt but that their use would be followed by the most pleasing effects. The readiness with which they may be obtained renders it well worthy of the notice of all, and particularly those who practice in remote sections of the country. May not the difficult and dangerous practice of transfusion be at least sometimes obviated by their use?

MISCELLANEA.

BELL'S DISEASES OF FEMALES.—John Bell, M. D., of Philadelphia, has now a work in preparation, "On the Diseases of Females. With special reference to their Hygienic Prevention and Treatment." The announcement of it by the publishers, (Messrs. Barrington & Haswell,) contains the following: "In this work, the author will take pains to point out the hygienic measures required for the prevention of the diseases to which, by her anatomical and physiological peculiarities, the female is liable, independently of the merely sexual organs. The differences in the nervous system, state of the blood, &c., indicate the necessity of differences, or, at any rate, notable modifications in both her physical and medical treatment. From birth, her future destiny and exposures, as mothers, ought to receive more attention, in reference to the laws of hygiene, than has hitherto been given to the subject. The relative frequency of the diseases of the sex in different periods of life, and the value of particular modes of treatment, will be tested as much as possible, by statistical returns; thus correcting the fluctuations of opinion and the obtrusions of hypothesis."

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BECK'S ELEMENTS OF MEDICAL JURISPRUDENCE.—Prof. T. Romeyn Beck, we observe from a paragraph in the Albany Evening Journal, has resigned his connection with the Albany Academy, and is now to devote his leisure time to a speedy revisal of the "Elements of Medical Jurisprudence;" the last edition of this very valuable work having been out of print for two years past.

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CONNECTICUT STATE MEDICAL SOCIETY.—From the published proceedings of this Society, we learn that its annual meeting was held in May last, and that the following officers were chosen for the ensuing year, viz: Archibald Welch, M. D., *Pres.*; George Sumner, M. D., *Vice-Pres.*; V. M. Dow, M. D., *Treas.*; Gurdon W. Russell, M. D., *Sec.* The annual address was delivered by B. Fordyce Barker, M. D., entitled Remarks on some Forms of Disease of Cervix Uteri.

In 1793, there were 255 members belonging to the Society; in 1829, 284; and at the present time there are 396 members.

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MEDICAL SOCIETY OF NEW-JERSEY.—In the July number of the New-Jersey Medical Reporter, we find a historical account of this society, from which we learn, that this is the oldest medical organization in the United States. The Medical Society of New-Jersey was organized on the 23d day of July, 1766, fourteen physicians became members. It was incorporated by an act of the general assembly of the province of New-Jersey, passed the 2d day of June, 1790.

At the close of the historical account contained in the Reporter, we find the following conclusions:

1. That the Medical Society of New-Jersey, dating its origin from the year 1766, was the first and most ancient society of the kind regularly formed and organized on this continent.

2. That the colonial legislature of 1772, actually passed an act to regulate the practice of physic and surgery within the then province of New-Jersey.

3. That the legislative act to regulate the practice of physic and surgery, passed in the year 1772, from the best evidence we now have, was the first of the kind enacted by any state in the Union.

4. That as far as we can now ascertain the fact, New-Jersey has not been behind any state in the confederacy, thus far, in legislating from time to time with a view to prevent quackery under any name or form, within its bounds.

A New Medical Journal.—We have received from J. H. Riley & Co., of Columbus, Ohio, the prospectus of a new Medical Journal, which they propose to establish in that city. It is to be called The Ohio Medical and Surgical Journal, and to be edited by John Butterfield, M. D., Professor of the Practice of Medicine in the Starling Medical College. The work will be issued every alternate month; each number will contain ninety-six octavo pages of reading matter. The well-known reputation of Prof. Butterfield is a sufficient guarantee for the ability and success of any journal with which he may become connected. We extend to this new gleaner in the field of medical literature a hearty welcome, and wish for it a long and prosperous career.

OBITUARY.

Died, at New-Orleans, on the 8th of August, Presley H. Craig, M. D., U. S. A., one of the oldest surgeons in the United States service. The deceased, while living, possessed, to an almost unlimited degree, the love and respect of all who knew him, and there are few whose demise will be more deeply regretted.

At Burlington, N. J., on the 18th of June, Isaac S. Haines, M. D., æt. 40. He was a very respectable practitioner, and a graduate of the University of Pennsylvania; also the author of a Catechism adapted to the course of Chemical Lectures in that University by Professor Hare—a very popular little work among the students.

On the 25th of April last, in the 24th year of his age, on board of the ship Victoria, on her voyage from London, Edward H. Delafield, M. D., eldest son of Edward Delafield, M. D., of this city.

PART FOURTH.

FOREIGN MEDICAL RETROSPECT.

ANATOMY AND PHYSIOLOGY.

On the Use of the Pancreatic Fluid. By M. BERNARD.—Prof. March has recently communicated in a letter to the editor of the *Boston Medical and Surgical Journal* some interesting facts in regard to the use of the pancreatic fluid. In speaking of M. Bernard, he says "that he promises to become one of the first experimental physiologists of Europe. He has already highly distinguished himself by his experiments and researches in digestion, and in the circulating and nervous systems."

His researches with respect to the pancreatic fluid, are quite recent, and establish, beyond all question, the exact uses of that secretion. The following is the substance of what he has arrived at on this point. The pancreatic juice, when collected from a living animal (a dog, for example,) by means of a fistula artificially established, has nearly identically the same physical character as the saliva, being limpid, colorless, slightly ropy, and rather heavier than water. It is constantly alkaline, and is coagulable by heat and strong acids, owing to the presence of albumen. The saliva is slightly alkaline when collected pure, but never coagulable by heat or acids. When the pancreatic juice is put in contact with azotized aliments, as fibrine, albumen and gelatine, there is no effect produced. Putrefaction occurs in time, but no digestion. When applied to farinaceous substances, they are changed into sugar, which is absorbable. Thus far there is nothing new—all this having been previously established. He, however, has shown—and the *merit* of this discovery is solely due to him—that when this fluid is put in contact with fatty substances of every nature, as oils, animal fats, butter, &c., they are quickly digested or decomposed, and reduced to a state in which they may be absorbed into the circulation. This property is peculiar to the pancreatic juice, not being possessed by the saliva, gastric juice, bile, serum, nor by any other fluid of the animal economy.

The pancreas, therefore, now takes rank with the most important organs of the system. I have seen him repeat his experiments with this fluid, and they are quite conclusive. The first effect produced, when you put the pancreatic fluid in contact with oil, or any fatty substance, is to form an intimate emulsion, which will not separate on standing. If you agitate oil with saliva, gastric juice, serum, or *pure* bile, or any other animal fluid, the mixture separates when in repose. (Bile of animals mixes, or makes an emulsion, with grease, by virtue of the pancreatic fluid that is frequently mixed with it.) After the emulsion is produced, the oil is decomposed into *glycerine* and a *fatty acid*, as the oleic acid, &c., which are absorbable, as well as the simple emulsion.

He has also established another very important fact in regard to the digestive fluids—which is, that the union of the bile and pancreatic fluid produces a new and distinct fluid, having in addition to the peculiar properties of these

two fluids, another superadded, viz., that of digesting azotized substances, or, in other words, the properties of the gastric juice. It therefore digests all alimentary substances, and is altogether the most important of the digestive fluids. This is found in the duodenum in man, below the orifice of the ductus communis choledochus, and in animals below the orifice of the pancreatic duct. By means of this fluid, which he calls the intestinal fluid, aliments which are not digested in the stomach, are acted upon in the intestines. The property that the pancreatic juice possesses of transforming starch into sugar, and which until now has been considered its chief property, is a very subordinate one, and by no means peculiar, as almost all the other fluids of the economy possess it, viz., the saliva, serum of the blood, liquid of cysts, &c.

All the effects produced by the pancreatic juice as above described, are equally well seen by taking the pancreas of a freshly-killed animal, as a chicken, dog, pig, &c, and bruising it, and pouring a little tepid water upon it. Let it stand, or agitate it a few minutes, and you have an artificial pancreatic fluid, with which you can perform all necessary experiments. If you kill the animal in a state of digestion, the fluid will be more active, as the pancreas is then in a state of greater activity. In the same way you can make artificial gastric juice, by taking the stomach of an animal. But the pancreas must be quite fresh, and the pancreatic fluid changes very quickly and loses its properties, whereas the gastric juice keeps indefinitely.

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Physical Influence of Capillaries on the Circulation—Although it would not *à priori* be expected that these minute vessels (the capillaries), the phenomena of which it has been so much the custom to regard as of a peculiar vital nature, are those in which physical laws would have much place, yet minute observation has shown that this is the fact. In the discussions of that much vexed question whether the capillaries had or had not vital powers by which they modified the general force of the circulation, upon which it is not necessary now to touch, one of the most essential facts of the whole vascular action was overlooked; it is this, that the mechanical arrangement of the tubes in each different organ of the body is so contrived as to modify the propulsive force of the heart, in consequence of which a local and peculiar kind of circulation is established in each particular part, according to its requirements. This fixed but adapted framework, stamped in the very act of development on the ultimate division of the circulatory organs, is so definite and precise, that the anatomist on seeing the minute vessels under the microscope, can predict to what class of organs they belong. The mechanical disposition to which I have referred, may be briefly expressed by stating, that the collective capacity of the capillary system varies in each organ, when compared with the area of the terminal arteries with which it is associated; and as the capacity of circular tubes enlarges in the ratio of the squares of the diameter, and as friction increases in the inverse ratio of the same measurement, we have the necessary data for determining the admeasurements which have been accumulated by so many observers, and which to many persons may seem to have no application. —*Med. Gaz., from Mr. Grainger's Hunterian Oration.*

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The Eye Naturally Adapted for Distant Vision.—Volkmann and Hueck both agree in considering that in its quiescent state, the eye is adapted to the vision of objects situated at the furthest point of distinct sight, and not, as has been generally supposed, of those situated about midway between this and the point of distinct vision nearest to the eye. In this case, therefore, in order to accommodate itself to the vision of an object placed at any distance within the furthest point of sight, the eye will require but one act, that, namely, of increasing its focal distance in proportion to the nearness of the object under view: no act will be requisite to adapt it to the perception of distant objects, for, in reverting to its state of rest, it at once resumes its capacity for distant

vision, and retains it so long as its quiescent state continues. In proof of this opinion, Volkmann observes, that in a state of rest, the axes of the eyes are directed towards a point even considerably beyond the most distant point of distinct vision, and that, since changes in the position of the axes usually correspond with changes in the adaptation of the eyes, it is improbable that the meeting of the axes beyond the most distant point of vision should coincide with an adaptation of the eyes for an object on this side of the point. According to Hueck, this view will also explain the distinct formation of the image of distant objects on the retina after death; as also the far-sightedness induced by the action of hyoscyamus and of belladona.—*Med. Gaz., from Baly and Kirkes's Recent Advances in Physiology.*

MEDICAL PATHOLOGY AND PRACTICAL MEDICINE.

Condition of the Blood-vessels in an Inflamed Part.—By Dr. C. Bruch.—From a pregnant bitch, Dr. Bruch removed the left Fallopian tube and ovary, and closed the wound in the linea alba with sutures. During the first day the animal did not appear to suffer much from the operation: it lay quietly, and took food; but on the second day it vomited several times, and about noon was found dead, having lived from forty to forty-five hours after the operation. On examining the body directly afterwards, the wound in the skin was found almost completely closed by recent exudation, only a small point being left still open, and this was filled with pus. In the cavity of the abdomen several ounces of chocolate-colored blood were found. This, under the microscope, presented unchanged blood-corpuscles, and numerous colorless, finely granular globules, some of which, on the addition of acetic acid, showed a large round body (nucleus) in their interior; while in others the acid brought into view two, three, or more small granules; the former were probably colorless blood-corpuscles; the latter more nearly resembled pus-corpuscles. The omentum had a dark-red fleshy appearance, was rolled up in the left hypochondrium, matted together, and adherent to the neighboring intestines by recent exudation. In the situation whence the left ovarium had been removed was a small collection of pus. The peritoneum lining the abdominal walls had, for some distance around the wound, an intense red color, from the injection of its blood-vessels, which were visible to the naked eye, and presented a remarkably tortuous appearance. It was not adherent to any part, and presented no exudation on its surface, which was tolerably smooth, glistening, and transparent, resembling much the appearances usually presented in the first stage of inflammation. A small portion of this injected membrane was placed beneath the microscope, and examined with a magnifying power of 100 diameters. It showed a dense network of blood-vessels, every branch of which was filled with blood, while the majority of them presented also a singularly varicose appearance. Each such varicose vessel, when viewed in the midst of others, presented not merely a sudden aneurismal dilatation here and there on its walls, but a general widening of the tube, which extended for some distance: the vessel also presented a remarkably tortuous spiral form, showing that it was not merely dilated laterally, but also increased in length. From the dilated parts fine vessels of an ordinary and uniform diameter and straight course proceeded; the varicose vessels also terminated in one or more fine ordinary branches. This singular appearance of the blood-vessels is in close resemblance with that recently described by Hasse and Kœlliker as occurring in the vessels of mucous membranes affected with chronic inflammation. It is therefore not characteristic of chronic inflammation, neither is it peculiar to inflammation of mucous surfaces alone, but it is probably an attribute of inflammation gnnerally. The reason why this condition of the vessels has not hitherto been found in acute inflammation, is because it probably only occurs at the stage preceding the occurrence of exudation; and the fact of Hasse and

Kœlliker having observed it in chronic inflammation, may be explained by believing that the continuance of the inflammatory process after the first outpouring of exudation is nothing else than the continuance of the dilated state of the vessels.

In regard to the size and the nature of the dilated blood-vessels, Dr. Bruch's observations do not coincide with those of Hasse and Kœlliker. The latter observers are of opinion that it is the capillaries which are enlarged; but Dr. Bruch, from repeated measurements, and the general appearance of the vessels, states that in his case the finest vessels were quite unaltered, while the dilatation was confined exclusively to what appeared from the thickness and structure of their walls to be the smaller arteries, or the capillaries of the second order as classed by Henle. From the fact, therefore, of the capillaries not being the vessels exclusively, or even chiefly, the seat of dilatation, it would appear in Dr. Bruch's opinion, that the dilatation of the smaller arteries should be regarded as the primary and essential change occurring in inflammation. This view harmonizes with the hypothesis advanced by Henle, that the dilatation of the vessels in inflammation is due to the influence of the nerves by which these vessels are supplied; for it is well known that the smaller arteries are provided with nerves, while the capillaries are not. Henle also believed that the minute size of the vessels in some tissues, as nerves and muscles, may be the reason why these tissues are so little liable to become the seat of inflammation. A fact observed by Dr. Bruch is somewhat in favor of this view; for he found that although some parts of the muscular walls of the intestines were reddened from the vessels being injected, and from coloring matter having transuded their coats, yet none of the vessels presented the varicose appearance found in the vessels of the inflamed portion of the peritoneum.—*Med. Gaz. from Schmidt's Jahrbücher.*

Contributions to the Statistics of Valvular Disease of the Heart, especially with reference to Affections of the several Orifices, and the particular Effects of certain Recognized Causes. By A. Whyte Barclay, M. D.—The facts which form the basis of this paper have been collected chiefly from the Museum Records of St. George's Hospital. The author has confined his attention to the cases which have occurred within the two last years. During that period there have been 535 deaths in the hospital, and in the records of the post-mortem examinations in 419 of these cases, the condition of the circulating organs has been recorded. In seventy-nine cases valvular lesion was found.

In an elaborate statistical table the author exhibits the following facts with regard to each of these seventy-nine cases. The condition of the valves, aortic and mitral; the age and sex of the patient; the existence or absence of atheroma in the aorta; the previous existence or not of acute rheumatism; the state of the heart as to size, thickness of walls, &c.; the state of the pleura and pericardium, as to recent inflammation or old adhesions; the state of the kidneys; other disease found in the body; and the chief cause of death. The author institutes a minute comparison of the 79 cases, and of the remainder of the 419 cases, with reference to these points; and remarks, in conclusion, that some of the deductions seem to him "worthy of attention, and demanding at least further investigation. The liability to double valvular disease (rather than disease of either the mitral or aortic valve separately) in consequence of rheumatic endocarditis, and the early incursion as well as the commonly early termination of that disease,—the limit put by age in so marked a manner to fibrinous deposit on the valves of the heart,—the very large proportion, amounting to almost one-half, of the fatal cases of granular kidney found coincident with valvular disease, and its comparative rarity in those cases in which the kidney is large and mottled, are all facts clearly established with regard to these cases. To others must be left to determine whether they hold good in their more general application.

One commonly received opinion these cases contradict—viz., that athero-

matous disease affects by preference the mitral valve; and another is at least doubtful—viz., that it is in the advanced stage of Bright's disease that endocarditis is liable to occur, unless we admit a form of endocardial inflammation without fibrinous deposit.—*Med. Gaz.*

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"*Ochlesis,*" *or the Disorder generated by the Accumulation of the Sick.* By GEORGE GREGORY, M. D. (*Med. Gaz.*)—The author designates the general condition of disease produced under these circumstances, by the term "ochlesis," derived from ὀχλος, a crowd. The normal type of the disorder is erysipelas of the face; but there is a vast number of allied affections which appear at different times with it, either separately or in combination. These are, erysipelas of the extremities, especially affecting wounds or sores; trails of erythematous redness, following the course of the chief absorbent trunks, and terminating in abscesses; cellular inflammation of the lower limbs, or phlegmasia dolens; cellular inflammation of the neck, leading to abscess, cynanche, otitis, glossitis; inflammation of the joints, terminating in purulent effusion; spontaneous gangrene of the genitals and of the extremities; gangrene supervening upon wounds or sores; spontaneous gangrene of some portion of the trunk of the body, especially in new-born children; gangrene of the umbilicus. Instances of pure fever, of a low type, from the same source, are not uncommon. Diarrhœa sometimes is the result, from the mucous membrane of the bowels becoming affected; and in the wards of lying-in hospitals, the "ochletic" miasm expends all its virulence on the peritoneum. The author has seen an asthenic form of laryngitis produced by the same cause, and believes that the pneumonia which springs up in hospitals has likewise its source in the contagious ochletic miasm. This miasm, too, he thinks, produces the excessive depression which attends the worst cases of sea-scurvy, and he has seen it occasion, in the Smallpox Hospital, a state resembling, in all respects, scurvy itself. All the disorders originating in the ochletic miasm are characterized by a low condition of the vis vitæ, and intractability. The experience of the Smallpox Hospital during many epidemic visitations, especially in the years 1842, 1844, 1847, and 1848, has convinced the author of the fact that all the diseases which he has enumerated may arise from the same miasm. Contagious peritonitis is perhaps the only form of the ochletic malady that he has not seen at that hospital during the last twenty-five years; but he regards it as quite certain that this is "part and parcel" of the same disease. The chief agent in the production of ochlesis is, certainly, the crowding together of the sick in one spot; but matters are made much worse by unfavorable locality, by dampness of the surrounding soil, imperfect drainage, or choked sewers, by deficient ventillation, by the character of the cases congregated, by neglect of personal cleanliness, by the employment of unpurified bedding, and by inefficient purification of the wards. Since, however, the ochletic miasm is evolved only at certain times, a peculiar but unknown condition of the atmosphere must concur towards the actual result. The ochletic miasm appears to attach itself strongly to the walls and floor of the apartment: hence, the use of covering the floor with a mixture of quick-lime and water, of lime-whiting the walls, of fumigating with nitric acid or chlorine, &c. The great means of checking the development of ochlesis, however, is to restrict the admission of patients, and to leave the infected ward unoccupied for a certain time.

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Involuntary Nocturnal Micturition, (Proceedings of the London Med. Soc.—Dr. Willshire made some remarks on nocturnal involuntary discharges of urine in young boys of about four or five years old, and also occurring in young women, about twenty or twenty-two. He observed that it was a very troublesome and tiresome complaint, and one in which medicine was of little or no use, sometimes continuing for several years. The urine was not altered in character. He thought it depended on irritation of the neck of the bladder, and during sleep the power of the mind being removed, the urine escaped. He

had used tincture of henbane and alkalies with some benefit, and also blisters or sinapisms to the sacrum, which appeared to do good as long as the irritation on the sacrum continued. He had seen no benefit from the use of nitrate of potassa or benzoic acid, which had been highly recommended by Continental writers. He had sometimes seen tincture of cantharides of use, when given until pain in the stomach was produced, and opium was of use as long as its narcotic effect continued.

Dr. Shearly thought camphor of great service in these cases.

Dr. Coley in the early part of his practice used to apply a blister to the sacrum; but latterly, he had always succeeded in curing the complaint with strychnia; he gave from one-twentieth to one-tenth of a grain to children, and he had always found it successful without any external applications. He thought that it was caused by paralysis of the neck of the bladder.

Dr. Rowland said, that in children it was often connected with the second dentition. In these cases we must attend to the gums, and give purgatives. In young women it was hysterical, and camphor and henbane were useful; the sesquioxide of iron and arsenic were also sometimes useful. The complaint often disappeared without treatment.

Mr. Pilcher.—This complaint has been attributed to paralysis of the sphincter vesicæ. Is there such a muscle?

The President inquired if the complaint occurred in all classes of society?

Mr. Hird said it did, and mentioned the case of a lady, the wife of a clergyman, who had had two or three children, who had been subject to it for three or four months. She was hysterical, and ammoniated tincture of valerian, with camphor and iron had been of use. In children, he thought it often occurred during the second dentition, and lancing the gums, the cold bath, and muriated tincture of iron, were the best remedies. The existence of a sphincter vesicæ he thought proved by an article in the "Cyclopædia of Anatomy," written by Dr. Harrison, of Dublin, for which Mr. Hird made some of the dissections; and afterwards, the late Mr. Fred. Tyrell, clearly proved it in a lecture at the College of Surgeons.

Mr. Pilcher said Mr. Tyrrell proved just the reverse, that there was a strong firm elastic tissue, but no muscle.

Mr. Fisher thought it was Sir Astley Cooper who gave the lecture on this subject.

Mr. Pilcher was quite sure that Mr. Tyrrell declared his conviction from dissections that there was no such muscle. Sir A. Cooper agreed with him, but Sir Astley's lecture was long before. Dr. Willshire's observation as to the effect of opium, would prove there was no muscle, as it acted by relieving the irritation caused by the bladder being partly full.

Mr. Robarts said that Dr. Willshire's remarks reminded him of the opinion of Sir Charles Bell, that enuresis was caused by the peculiar irritability of the trigon of the bladder; the patient lying on his back, the urine irritated this part; the patient should be made to lie on the side, and a blister to the sacrum would oblige him to do so. The best remedies were muriated tincture of iron and cold bathing. He had seen it caused by calculus.

Dr. T. Thompson had seen a combination of muriated tincture of iron, tincture of cantharides and paregoric, very effectual in almost all cases where separately they did litl good.

The President said that Mr. Robarts' remark as to calculus producing enuresis was important, and mentioned a case presenting the symptoms of calculus, and the urine passed involuntarily in bed, but no stone being detected when he was sounded, calomel and jalap were given under the idea that there might be ascarides; a tape-worm was passed from the bowels, and the symptoms disappeared. In some cases colchicum, wine, and liquor potassæ are of use; in others sulphate of quinine or iron. He thought it was oftener observed amongst poor children than in the higher classes.

Dr. T. Thompson thought the similar way in which the rectum and bladder are affected in injuries to the spine, proved the existence of a sphincter.

Mr. Robarts mentioned a case which he saw some years ago, in which the spinal cord was cut across by a tumor; incontinence of urine came on, and constipation of bowels. Tincture of cantharides was given.

Dr. T. Thompson said, emotions of the mind could only act on a muscular sphincter, not on elastic tissue.

Mr. Pilcher said the effect of the injuries to the spine was to cause retention of urine, the urine only dribbling off when the bladder is distended; his opinion was, that there is no sphincter: he thought it much more likely that emotions of the mind should affect the detruser, a voluntary muscle, than the sphincter, which must be an involuntary one; the physiology of the bladder proved it to be a mechanical not a muscular sphincter. Incontinence of urine was a rare affection; irritation in the bladder or of the detruser muscle might cause it. In poor children, he thought the complaint a bad habit, acquired by the neglect of nurses, the urine collecting in the bladder too long. It would be observed that the bladder contracts at the same time exactly each night, and if the child is taken up before that time, the involuntary discharge was prevented.

Mr. Hird inquired if Mr. Pilcher thought the action of tincture of lyttæ or strychnia would be to allay or to increase irritability of the detruser muscle.

Mr. Pilcher thought they might allay irritability, but he would trust more to precautionary means than to medical treatment.

Dr. Willshire did not agree with Sir C. Bell's opinion, as many of the worst cases occurred in children when lying on the belly. Opium constipated the bowel, not by its effect on the muscle, but by its sedative effect on the bowel itself, and it might affect the bladder in a similar manner. In some cases by narcotism the habit was broken for several nights, yet it returned when the opium was discontinued; if habit was the cause of it, would it go on after the child was whipped, punished, and frightened in different ways?

Mr. Dendy thought there were muscular fibres at the neck of the bladder, if not a distinct sphincter; the effect of cantharides would be stimulant if it was only an elastic tissue, causing discharge of the urine, not retention. In the rectum the position of repose of the sphincter was contraction; the effect of a blister would be to cause contraction of the sphincter: the treatment must depend on the causes producing the complaint. In some cases a quill applied over the urethra, and secured by strapping, has a good effect.—*Lancet.*

SURGERY.

On the Causes of Death in Secondary Amputations. By Dr. Fenwick. (*Edin. Med. & Surg. Jour.*)—In analyzing the causes of death in secondary amputations, it was found that, whilst the patients undergoing that operation were not so liable to inflammatory affections as those suffering amputation immediately after the receipt of an accident; yet, that they were more likely to sink from exhaustion than cases of pathological amputation, and that this, in fact, constituted the chief danger of the amputation when performed at a considerable distance of time from the accident. From this we might be led to conclude, that the period of life in which the reduction of the strength of the patient by disease has the greatest effect in preventing subsequent inflammation, and, at the same time, that period in which the greatest power of resisting shock existed, we should find the most favorable for the secondary amputations; and this supposition Dr. Laurie's statistics confirm. Between 20 and 30 years of age, no deaths occurred out of 7 secondary amputations; whilst before that period, in which we found the shock had so deadly an influence, 7 died out of 13, or one in every 1·85. Between 30 and 50 years of age, during which deaths most generally occurs from secondary inflammation, whether the operation be performed for traumatic or pathological causes, 12 died out of 16 cases of secondary amputation, or 1 in 1·33: whilst, beyond 50 years of age, of 8 cases, 6 also died, or 1 in 1·33. From 20 to 30 years is the age, then, at which we gain most by deferring, for the longest time, an amputation

for an accident, both because the reparative process is most active at that period, and therefore there is a greater chance of a natural recovery, and also because there is less danger than at other times of life of the patient's sinking from exhaustion immediately after the operation; whilst by the continuance of suppuration, the chance of the secondary inflammations to which that age is liable after amputations, is removed. In patients below 20 years of age, we should remove the limb at an earlier period if there seems but small probability of a natural recovery from the accident; because there is less power in persons at that time of life of surviving the shock of the amputation, if it be long deferred, and we gain less in other respects by delay, on account of the small chance of the occurrence of phlebitis, or other secondary inflammations, after the amputation, when performed on persons of that early age.

But the question arises, at what age are persons suffering compound fractures of the limbs least likely to reach that period when amputation can be safely employed? From an analysis of a number of such accidents to the lower extremities, I found that, of persons below 20 years of age, 3 died out of 24, within the fourth and twenty-first day after the infliction of the injury. In none of these, therefore, could any chance of a favorable result, after amputation, have existed, otherwise that operation would have been attempted. Of 22 cases of compound fracture, between 20 and 40 years of age, 4 died, or 1 in 5·5; whilst of 20 cases who were between 40 and 60 years, 2 perished, or 1 in 10; and of 4 persons above that time of life, none died. It should be therefore borne in mind, in attempting to save a dangerous case of compound fracture of the leg, without amputation, when the person is between 20 and thirty years of age, that there is less chance of a patient reaching the period of suppuration, when secondary amputation, if required, is most successful; although if that operation can be performed, there is a greater probability of recovery than if it were performed upon a person below 20 years of age.

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Scirrhous Lymphatic Gland.—(*Prov. Med. & Surg. Jour.*)—Mr. Bree, Secretary of the Suffolk Branch of the Provincial Medical and Surgical Association, has recently detailed a case of "scirrhous deposit," affecting primarily and solely the lymphatic gland of the right axilla, in a lady aged 60. The tumor has been seen by Sir B. Brodie, and Mr. Aston Key, and was removed by the latter gentleman. The physical character of the tumor previous and subsequent to the operation, and its microscopical examination afterwards, left not the slightest doubt as to the nature of the affection. In his remarks upon the case, Mr. B. said that it was one of extreme rarity. Scarpa denies its existence. Prof. Walsh records but one case in his classic work.

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Dislocation of the Head of the Femur on the Dorsum Ilii, in a Child Three-and-a-half Years Old.—(*Provincial Med. & Surg. Jour.*)—Mr. Image recently communicated the particulars of the following case to the Suffolk Branch of the Provincial Medical and Surgical Association:

William Colley, aged 3½ years, of Ixworth, Suffolk, was admitted into the Suffolk Hospital, May 6th, 1847, with dislocation of the head of the femur on the dorsum ilii. The accident had occurred twelve days prior to his admission.

The accident appears to have been produced by his sister jumping upon his shoulders, from a step above that on which her brother was standing. When I first saw him, the left great toe was resting on the instep of the opposite foot, and the knees crossing over the lower third of the right femur. The limb was an inch and three quarters shorter than the right. He was a remarkably fine

healthy child. Soon after his admission, reduction was attempted for a considerable time, but unsuccessfully, as we were not able to fix the knee-strap sufficiently tight to bear the long-continued extension.

May 7th. Having obtained a proper sized knee-strap, and having nauseated our little patient with tartar emetic, and put him into a hot bath, we again applied the pulleys, and after ten minutes succeeded in reducing the dislocation. The bone passed into its natural situation without the slightest jerk or sound. The limb now assumed exactly the same appearance as the other, the shortening being entirely removed. The thighs were kept tied together for a week, and on the 18th of May he walked out perfectly well.

I have ventured to lay the above case before the Society, in consequence of a charge having been urged against a neighboring surgeon, of pretending to reduce a dislocation of the femur on the dorsum ilii, in a child only four years old, that child being a pauper and chargeable to the parish. It was agreed, and proved by authorities, that no such case was recorded, and therefore had not occured, and that seven years' old was the earliest period at which this accident had taken place. On being referred to, I was rejoiced to have it in my power to lay before the proper authorities the above case, which was submitted to some leading surgeons in London, who admitted its perfect possibility, although it was considered to be a very rare occurrence.

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Dry Gangrene of the Lower Extremity occurring in a girl ten years old. (*Prov. Med. and Surg. Jour. for July* 26, 1848.)—Mr. James Cooper, of Filby, near Yarmouth, related the symptoms of this case, which occurred in a girl ten years of age. The girl was of a generally healthy habit, spare, of nervous temperament, and had been subject at intervals to attacks of nausea and vomiting, with palpitation of the heart. On the 10th of April last, (having had one of these attacks the day previous,) she was seized with pain and swelling in one finger; on the 13th with numbness of the legs and hips, especially the left. After a while these left her, but the pain subsequently returned most severe in the right foot, which became cool and livid from the foot to the knee, slightly swelled, of diminished temperature, with some pain on pressure. Leeches, &c., were applied.

On the 17th, the leg was much the same. She had an attack of vomiting this day. The sensation of the limb subsequently became more and more impaired, and the limb more livid. Afterwards there commenced all the symptoms of dry gangrene of the limb, extending as high anteriorly as the middle of the tibia; and posteriorly above the ankle the line of demarcation formed, and vesication appeared.

June 9th. She had no appetite, hectic, considerable discharge from the limb, and no pulsation could be detected in the femoral or popliteal arteries. It was, consequently, deemed necessary to amputate the limb, which was done, and the patient subsequently recovered.

Mr. J. G. Johnson, in trying to account for the occurrence of the disease in so young a subject, thought it must, in the beginning, have been a disease in the arteries—that it was the result of arteritis. And he related some cases that had occurred under his observation, where, in treating the case with this view, upon antiphlogistic principles, he had been successful in allaying the symptoms.

[This girl, and a boy of the same age, whose case is reported by Mr. Dayman, of Milbrook, in the *Provincial Journal* for 1846, p. 302, are, probably, the youngest subjects in which spontaneous gangrene has been known to occur.]

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Fracture of the Neck of the Femur.—By Prof. Sands Cox, Queen's Hospital, Birmingham. (*Prov. Med. & Surg. Jour.* for July 12, 1848.)

Sarah Shaw, aged 57, housekeeper, was admitted into the Queen's Hospital on the 9th of April, 1846, under the care of Professor Cox. It is stated that

she fell down upon the footpath, and struck the upper and outer part of the right thigh with great violence.

On examination the limb was found shortened, and the foot inclined outwards; there was free motion in all directions, but it was painful, more particularly when the knee was carried inwards. During these motions crepitus was distinctly felt; there was considerable swelling and ecchymosis, and the diagnosis was —fracture of the neck of the thigh bone without the capsular ligament. After a few days the limb was placed upon a double-incline plane; and she was discharged cured, walking but slightly lame, on the 15th of July, 1846.

Remarks.—Various are the means which have been resorted to in treating fractures of the neck of the thigh bone within the ligament, for the purpose of producing bony union, and all without avail. Some use the double-incline plane: another method is to place a board at the foot of the bed, upon which the foot of the sound limb is supported, so as to prevent the descent of the body, and a weight is suspended to the other foot, and hung over the end of the bed, so as to keep up regular extension; another method is to bind both legs together, so as to make one limb preserve the extension of the other. The best method is to place a pillow under the whole extent of the limb, and to keep the patient very quiet till all inflammation and pain has subsided; then the patient should rise daily and sit in a chair, and afterwards walk with crutches until the ligament becomes thickened and the muscles increased in power.

In the treatment of the above case, the indication was to keep the bones in apposition, and no plan has been more successful than that adopted in this instance. The double-incline plane was used in order that the patient might lie in as easy a position as possible, to keep up easy and regular extension, and the strap around the pelvis was to press the trochanter towards the acetabulum.

I have lately seen the patient, and she follows her employment as housekeeper to a gentleman; and although it is a little shortened, she has a strong and useful limb.

In reference to this case, I insert an original letter from the late Sir A. Cooper, Bart.:—

"*Hemel Hempstead*, June 10, 1835.

"My dear Sir,—The fracture of the neck of the thigh bone within the capsule, which I call the internal fracture, certainly remains ununited by bone in a large proportion of cases, but as I have mentioned in my work on 'Dislocations and Fractures of the Joints,' there are a few exceptions to this rule, but they are very rare. One exception is, when the reflected ligament on the neck of the bone is not torn through, of which I have a beautiful specimen given me by Mr. Swan, of Lincoln, and now of London, in which the neck of the bone had been cracked through, and twisted upon its axis; but it was not separated, and it is firmly united by bone, and it was curious that no surgical means were employed, and yet the cure took place in a very short time. In oblique fractures, in part within, and in part without, the capsular ligament, an ossific union will occur, but this is not truly an internal fracture. In young persons in which the limb was not shortened, and yet in which fracture was suspected, I should apply a pad to the hip, and support it by splints, and place the thighs over an inclined plane. But these are exceptions which rarely occur; it is the principle for which I contend, namely, that the fracture of the neck of the thigh bone, as it occurs in persons of advanced life, does not unite, and that attempts to make it do so, are useless in practice, and mistakes respecting the reparative process. In old persons the bone undergoes an interstitial absorption, which is the cause of the fracture of the cervix from slight injuries, and immediately after the accident the bone is drawn up, and widely separated from the other. This altered state of the neck of the bone from age, and the difference which exists in the articular extremities from the shafts of bones, in having no periosteum but only a reflected ligament, indisposes the bone to ossific union. In fractures of the shafts of bones the muscles draw the fractured ends together, and the union is produced by the periosteum coat-

ing the bone with earth, as well as the cancelli forming new bone; but this is not the case in articular bones. For example, the patella has no periosteum, and that its natural mode of union is by ligament, is seen in experiments on dogs, hares, or rabbits, in which it uniformly unites by ligament, which nature knows is best calculated for motion; but the foolish surgeon squeezes down the bone, and uses complicated bandages to effect, in opposition to nature's wishes, an union by bone when his object ought to be only the production of a *short ligament.* The neck of the thigh bone is governed by the same laws. Nature's object is to produce a ligamentous union as being best calculated for future motion: and the surgeon who is ignorant of nature's object, tries to effect an ossific union.

"A base attempt has been made to fix upon me the opinion, that fracture of the neck of the thigh bone never united by bone; nothing is more false, for I have expressly in my work given the exceptions. Time is the only test of truth, and my professional brethren are now of opinion, that the union of the neck of the thigh bone, as a general principle, does not occur, and therefore are now giving up their absurd and even dangerous attempts. As to the specimens of union of the neck of the thigh bone in Paris, the French surgeons confound the internal with the external fracture. I have seen the museums of Paris and Germany, (1828 and 1830,) and they then did not contain any specimens of the kind, at least I did not see any, but they may have now one or two, as they will occur under the circumstances I have mentioned. You may do with this letter as you please.

"Believe me always, yours truly,

"William Sands Cox, Esq." "Astley Cooper.

MIDWIFERY.

Case of Unavoidable Hemorrhage—Successful Operation of Transfusion.—By Dr. Waller.—The following interesting case occurred in the practice of Mr. Greaves. Hemorrhage appeared to an alarming extent in the eighth month. The patient appearing in a desperate state, Dr. Waller's assistance was requested. He found her in a very unpromising state, with a completely blanched countenance, pale and livid lips, cold extremities, laborious respiration, and a pulse scarcely perceptible; the general surface of the body was also cold. In short, everything indicated approaching dissolution. Stimulants had been freely given, but they failed to excite even a temporary rally. The vagina was filled with coagula; and, as the hemorrhage appeared to have ceased, he did not think it advisable to disturb the clots in attempting delivery. Stimulants were again had recourse to, but with no better effect. The symptoms of exhaustion increased, and nothing but transfusion, seemed, under these circumstances, to hold out the slightest chance of relief. Mr. Greaves concurring in this opinion, preparation was made for its performance. The first intention was to have laid bare the vein, and to have had all things in readiness, then to have delivered, and, provided there had been no improvement in the condition of the patient, to have transfused immediately afterwards. A little reflection convinced the operators that this plan would be fraught with danger; for, had syncope occurred, in all probability it would have been fatal. The operation was, therefore, at once commenced. When about five ounces of blood had been introduced, the amendment was evident; the pulse was more perceptible, and the countenance assumed a somewhat better aspect. The blood now flowed very sluggishly from the arm of the female who supplied it; it was, therefore, determined to wait awhile and watch the effects, nourishment and stimuli being administered occasionally. The rally continued for about two hours and a half, when the female again began to sink, and jactitation supervened; gruel, with brandy, was given without any benefit; the pulse was again but just perceptible, and the body getting cold. Dr. Waller again in-

jected about four ounces of blood from the same individual who had previously supplied it; but this time the symptoms did not improve. The stream issuing from the punctured arm was so languid that it was not thought right to proceed, and a fresh subject was sought to furnish them with a better supply. The husband of the patient, being in the room, came forward to their aid; he looked rather pale, and, therefore, they gave him a glass of hot spirits and water, and then opened a vein, from which the blood flowed in an impetuous stream. The first injection of about two ounces produced a marked alteration in the pulse; it became decidedly perceptible. When nine ounces had been injected, the countenance was much improved; there was even a slight appearance of color in the cheeks, and pain in the arm was complained of. Four ounces more were introduced, when all symptoms of immediate danger vanished. There was no faintness afterwards; the surface was warm; the pulse steady, about 100 in the minute; jactitation ceased; and nourishment was retained on the stomach. The only complaint was of excessive fatigue, with inclination for sleep; there were also a few "grinding pains." Dr. Waller visited her again in about an hour and a half. She had been dozing, and was extremely tranquil; re-action was perfect, and there was no hemorrhage, no tumult in the circulation. He now left the case in the hands of Mr. Greaves, who afterwards informed him that, after a sleep of some hours, the pains increased, and he felt a portion of detached placenta in the vagina; this was expelled by the natural efforts. A dead child soon followed, the remainder of the placenta coming away an hour afterwards, without hemorrhage. The mother recovered.

[The failure of the second injection from the original person to rouse the patient when the "stream issuing from the punctured arm was languid," and the instantaneous success derived from the freely flowing blood from the husband's arm, are suggestive of valuable propositions, which should not be lost sight of in practice.]—*Ranking's Abstract from Med. Times.*

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Rupture of the Unimpregnated Uterus.—M. Gozzo, of Naples, narrates the following extraordinary case:—A woman, aged 34, the subject of dysmenorrhœa, and sterile, was examined. The uterus was felt above the pubis, as large as at the fifth month, but perfectly destitute of inequalities of its surface. The uterus continued to increase until its fundus reached the xiphoid cartilage; the menstrual discharge was irregular, and followed by considerable leucorrhœa. She was shortly seized with symptoms of intestinal obstruction, from which she was recovering, when she was suddenly seized with collapse and abdominal pain, and died in less than twenty-four hours.

After death the peritoneal cavity was found to be almost filled with pus, mingled with serous fluid and fœtid gas. The uterus adhered to the lateral parts of the abdomen, from the pubis as high as the umbilicus, filling the iliac regions; it was covered by the large omentum. The intestinal surface was irregular, and covered with fungous excrescences and tubercular masses of various sizes and forms, its cavity being filled with a white inodorous pus. The uterine walls were thickened, and contained several small abscesses, some of which were close to its peritoneal surface. The posterior aspect of the organ exhibited a rent, through which the matter had escaped into the abdomen. An encephaloid tumor was likewise found occupying the lower segment of the uterine surface.—*Provin. Med. & Surg. Jour. from Archives Générales*, Mars, 1848.

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Medicated Pessaries.—The following are those chiefly used by Dr. Simpson:—

Zinc Pessaries.—R. Zinci Oxidi, dr. j.; Ceræ Albæ, dr. j.; Axungiæ, dr. vi. Misce et divide in pessos quatuor.

Lead Pessaries.—R. Plumbi Acet., dr. ss.; Ceræ Albæ, dr. iss.; Axungiæ, dr. vi. Misce.

Mercurial Pessaries.—R. Unguent. Hydrarg. Fort. dr. ij.; Ceræ Flavæ, dr. ij.; Axungiæ, oz. ss. Misce.

Iodide of Lead Pessaries.—R. Plumbi Iodidi, scr. j.; Ceræ Flavæ, scr. v.; Axungiæ, dr. vi. Misce.

Tannin Pessaries.—R. Tanninæ, scr. ij.; Ceræ Albæ, scr. v.; Axungiæ, dr. vi. Misce.

Belladonna Pessaries.—R. Extr. Belladon, scr. ij.; Ceræ Flavæ, dr. iss. Axungiæ, oz. vi. Misce.—*Monthly Journal*, June, 1848.

Case of Imperforate Vagina at the time of Labor. By Dr. J. Ogden, Manchester. (*Brit. Rec. of Obst. Med.*)—The patient had been married ten years. At the age of nineteen she was operated upon for imperforate vagina, producing retention of the menses; the opening closed, and she menstruated by the meatus urinarius. On being called to the case, Dr. O. learnt that it was her first labor, and on making an examination, could find neither labia, nymphæ, clitoris nor vagina; he could only find a flat, hard tumor, resembling the top of the fœtal head. On discovering this state of things, he says:

I immediately despatched a messenger for my scalpels, and on receiving them, made an opening of considerable extent, as large as the rectum and meatus urinarius would admit of, without injury to the parts. I was greatly surprised to find the barrier, or intervening substance which I had to penetrate, fully an inch and a half in thickness. The membranes were unavoidably severed in the operation, and a considerable quantity of water was evacuated. In about an hour after the section had been completed, she gave birth to a still-born, moderately sized male child, during the expulsion of which, great care was required to prevent laceration, which caused much anxiety to avert. About two years after the accouchment, I was again called in, to attend her, at the full time of utero-gestation. I found the vagina thick and unyielding, and which would, with the greatest difficulty, allow of the admission of two fingers only; the os uteri fully dilated; pains severe, and recurring at short intervals. I waited six hours, in hopes of the vaginal contraction yielding a little; but eventually ascertaining the impossibility of it, I determined, as before, to assist the expulsion by opening the vagina with the scalpel. This I accomplished with the greatest care, first introducing a catheter into the bladder, as a guide to prevent injury to that organ, and then making use of my finger per anum, in performing the section towards the rectum. In about an hour, at imminent risk of laceration, with the aid of the vectis, I succeeded in extracting a full grown, living female child.

After the birth of this her second child, I saw Mr. Grime, who had removed to Manchester, and elicited from him the following facts, regarding the operation, which he and Mr. McMaith had previously performed upon her. After expressing his surprise and astonishment at her being impregnated, he stated that he, in consultation, attempted to open the vagina with a lancet, for retained menses; but finding the intervening substance so thick, was compelled to resort to the scalpel. After cutting to the depth of an inch and a half, they were much surprised by a gush of water issuing from the wound, and on opening a little farther, they succeeded in evacuating a quantity of thick grumous blood, and agreed to introduce a canula to keep the opening pervious: this, however, was not retained long; and supposed the opening closed, but had not heard of her since. When I related the accounts of her different accouchments, he remarked, that the escape of water during the operation he performed, could never be accounted for, either by himself or his colleague; but that now he was quite convinced that the meatus uri-

narius, in the upper part of the vagina, must have been opened, and remained pervious; and through this she must have menstruated, and become impregnated. This also is my opinion, as it could not have occurred in any other manner.

I have consumed much time in searching the works of ancient and modern writers for records of similar cases, but without avail, and have also particularly inquired of my medical friends if they were cognizant of such cases occurring, or remembered having met with them in their various readings; but with a similar result. I have not succeeded in obtaining any proof that the like ever before occurred, or has been recorded in any book.

MISCELLANEA.

Progress of Cholera.—The *London Medical Gazette*, for July 14th, 1848, contains the following editorial in regard to the present appearance of the disease:

"We regret to find, from the reports in the foreign journals, that the Asiatic cholera is rapidly extending through the southern and western parts of Russia. It is now prevalent throughout Moldovia and Wallachia. At Galatz, the population of which is estimated at 40,000, it appears that there have been since February, 746 cases, and 237 deaths. In Moscow, the disease has again broken out with redoubled virulence, and appears to set at defiance all kinds of medical treatment. In two days there were 222 cases, and more than one-half had proved fatal. The fact of most interest to us in reference to its progress westward, is its appearance at St. Petersburgh. This had been frequently rumored during the early part of the spring, but the intelligence is now confirmed; and it would appear that the fatality of the disease has even been greater than in Moscow. Up to the 24th June, there had occurred in the Russian capital no less than one thousand cases, of which more than one-half had proved fatal. As in 1831–2, the malady may continue to extend to the maritime ports of the Baltic, and so across the German ocean to our own shores."

Professor Syme.—The London Medical Gazette, of May 19, announces the resignation of Mr. Syme as Prof. of Surgery, in University College. The reasons specified for his resignation was his unwillingness to become involved in the differences which are known to exist between some of the members of the faculty of said college. The same journal for May 26th, states that as soon as his resignation was known, a general meeting of the students of University College and Hospital, was immediately called; the meeting was numerously attended, resolutions expressing deep and profound regret at Mr. Syme's resignation, were unanimously passed. After which a deputation was sent the same evening to represent to him the feelings of the meeting. By a recent number of the Monthly Journal, we learn that Prof. Syme has returned to Edinburgh, and that he has been allowed by the crown to withdraw his resignation of the chair of Clinical Surgery, in the University of Edinburgh, which he sent in previous to the occasion of his accepting the Professorship of Surgery in University College London. He will accordingly resume his duties in the Edinburgh University, the coming session.

Revolutionary Attack on a Prof. of Chemistry.—The Parisian insurgents, in carrying out their views of liberty, attacked the house of an eminent chemist in the Faubourg St. Marceau. They insisted that he should immediately prepare gun-cotton for their use. For twenty-four hours he resisted this attempt on the part of the revolutionists, informing them that he had not the materials for the purpose. These were, however, immediately procured. Muskets were pointed at the chest of the professor, and the lives of his wife and daughter were equally threatened, and under these circumstances he was compelled to set about the preparation of gun-cotton. He had prepared only a small quantity when the quarter was taken possession of by the government troops; and he and his family were thus rescued from the perilous position in which these friends of liberty had placed them.—*Lond. Med. Jour. from L'Union Med.*

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Medical Schools of Portugal.—From the London Medical Gazette for June last, we learn that the total number of students in the medical schools of Portugal, during the current year, amounts to 148. Of this number, there are 98 at Lisbon, and 50 at Oporto.

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A Statue of Liston.—We see by the London Medical Gazette, that a large number of noblemen and gentlemen have formed themselves into a committee, for the purpose of establishing some public and lasting testimonial to the memory of the late Mr. Liston. It is proposed to erect a statue in some public situation and also to found a gold medal, to be called the *Liston Medal*, to be awarded annually as the council of University College may decide. The subscriptions already made up, amount to upwards of £650.

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The Wounded in Paris. (*Med. Gaz. for July* 14.)—According to a circular published by Mr. Thierry, it appears that the late struggle for "liberty, equality, and fraternity," was attended with the following results. From the 23d to the 28th of June, there were received into the Hospitals 1781 cases of wounds; but of these, 162 were dead when they were brought in. In addition to these there were in five days 195 deaths. On the 29th of June, there remained in the Hospitals, 1267 wounded; and in the temporary ambulances 369, making a total of 1631 persons still under treatment.

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Re-Vaccinations in the Prussian Army in 1847.—The total number of men vaccinated was 43,264; the number of those who bore marks of a former vaccination in a decided manner, 34,264; ditto with the marks not very distinct, 6,405; ditto with marks not visible at all, 2,927. The vaccine virus developed itself satisfactorily in 25,544; very irregularly in 7,425; and not at all in 10,627. The vaccinations which had yielded no results were repeated; they acted in 2,718; and failed entirely in 8,952 cases. In consequence of the present vaccination, there were developed from one to five vaccine pustules upon 13,295; from six to ten upon 8,164; from eleven to twenty upon 5,767; from twenty-one to thirty upon 1,036 of the men. Amongst those who were vaccinated in the year 1847, there was, within the same year, no case of varicella, none of actual smallpox, and one only of chicken-pox. The lymph was obtained from vaccinated children or grown-up persons. It is remarkable that amongst those who were subjected to re-vaccination there were several who had had the smallpox before, yet upon whom the vaccine matter produced the usual pustules.—*Lancet.*

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ART. VIII.—Observations on Surgical Diseases of the Head and Neck. Selected from the Memoirs of the Royal Academy of Surgery of France. Translated and Edited by DREWRY OTTLEY. London: Printed for the Sydenham Society, 1848. 8vo., pp. 293. - - - - - - - 346

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ART. X.—Medical Lexicon: A Dictionary of Medical Science; containing a Concise Explanation of the various Subjects and Terms; with the French and other Synonymes; Notices of Climate and of celebrated Mineral Waters; Formula of various Officinal and Empirical Preparations, etc. By ROBLEY DUNGLISON, M. D., Professor of the Institutes of Medicine, etc., in Jefferson Medical College, Philadelphia. Seventh edition, carefully Revised, and greatly Enlarged. Philadelphia: Lea & Blanchard, 1848. 8vo., pp. 912. 361

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ART. XIV.—An Analytical Compendium of the Various Branches of Medical Science, for the Use and Examination of Students. By JOHN NEILL, M. D., Demonstrator of Anatomy in the University of Pennsylvania, Lecturer on Anatomy in the Medical Institution of Philadelphia, etc., and FRANCIS GURNEY SMITH, M. D., Lecturer on Physiology in the Philadelphia Association for Medical Instruction, Fellow of the College of Physicians, etc. Philadelphia: Lea and Blanchard, 1848. 12mo., pp. 908. - - 364

ART. XV.—The Ohio Medical and Surgical Journal. Edited by JOHN BUTTERFIELD, M. D., Professor of the Practice of Medicine in the Starling Medical College. Vol. 1st., No. 1., for September, 1848. Columbus: J. H. Riley & Co., 1848. 8vo., pp. 106. - - - - - - 365

ART. XVI.—A Dictionary of Practical Medicine; comprising General Pathology, Nature and Treatment of Diseases, Morbid Structures, etc. By JAMES COPLAND, M. D., F. R. S. Edited, with Additions, by CHARLES A. LEE, M. D. New-York: Harper & Brothers, 1848. 8vo., pp. 144. 365

ART. XVII.—The Principles and Practice of Medicine. In a Series of Essays. By JOHN W. HOOD, M. D. Philadelphia: Thomas, Cowperthwait & Co. 1848. 8vo., pp. 263. 366

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TO READERS AND CORRESPONDENTS.

The Communications from Drs. Whiting and Gescheidt, promised in our last, for the present Number, have been necessarily deferred until our next, which will also contain articles from Professors Bedford, Dickson, Drs. Batchelder, Shearman, Hosack, Stimson, and others; and a very interesting report of the "Proceedings of the New-York Pathological Society." These "Reports" will, we are pleased to announce, be regularly continued in this Journal.

No. IV., Vol. 2d., (New Series,) will be published on the first of Jan., 1849.

We acknowledge the reception of the following Books. &c.:—

Illenau die Grosherzoglich Badische Heil- und Pflegeanstalt. Statut, Hausordnung, Krankenwartdienst, Bemerkungen und Nachrichten als Auskunst für Behörden und Angehörige der Kranken. Mit einem Situationsplan. Rastatt, 1847. (From the Institution.)

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An Inquiry into the Degree of Certainty in Medicine; and into the Nature and Extent of its Power over Disease. By ELISHA BARTLETT, M. D., Professor of the Theory and Practice of Medicine in Transylvania University; Member of the American Academy of Arts and Sciences, &c., &c. Philadelphia: Lea and Blanchard, 1848; 12mo., pp. 84. (From the publishers.)

The Nature and Treatment of Deafness, and Diseases of the Ear; and the Treatment of the Deaf and Dumb. By WILLIAM DUFTON, M. R. C. S. Philadelphia: Lea and Blanchard, 1848; 12mo., pp. 120. (From the publishers.)

Ancient Monuments of the Mississippi Valley; comprising the results of Extensive Original Surveys and Explorations. By E. G. SQUIER, A. M., and A. H. DAVIS, M. D. Accepted for publication by the Smithsonian Institution, June, 1847. Published for the Authors. New-York: Bartlett and Welford. Cincinnati: J. A. & U. P. James. 1848. Quarto, pp. 306. (From the Authors.)

Observations on the Pathology of Croup; with Remarks on its Treatment by Topical Medications. By HORACE GREENE, A. M., M. D., &c., &c. New-York: John Wiley, 1847; 12mo., pp. 115. (From the publisher.)

A Dictionary of Practical Medicine; comprising General Pathology, the Nature and Treatment of Diseases, Morbid Structures, &c. By JAMES COPLAND, M. D., F. R. S. Edited, with Additions, by CHARLES A. LEE, M. D. New-York: Harper and Brothers, 1848; 8vo., pp. 144. (From the publishers.)

The following Journals have been received in Exchange.—

The American Journal of Pharmacy, published by authority of the Philadelphia College of Pharmacy, edited by Joseph Corson, M. D., and Wm. Proctor, Jr. for October. (Quarterly. Philadelphia.)

The American Journal of the Medical Sciences, edited by Isaac Hays, M. D., for October. (Quarterly. Philadelphia.)

The American Journal of Insanity, edited by the Officers of the New-York State Lunatic Asylum, for October. (Quarterly. Utica, N. Y.)

The New-Jersey Medical Reporter, and Transactions of the New-Jersey Medical Society, edited by Joseph Parrish, M. D., for October. (Quarterly. Burlington.)

The Medical Examiner and Record of Medical Science, edited by Robert M. Huston, M. D., for September and October. (Monthly. Philadelphia.)

The New-Orleans Medical and Surgical Journal, devoted to Medicine and the Collateral Sciences, edited by J. Harrison, M. D., and A. Hester, M. D., for September. (Bi-Monthly. New-Orleans.)

Southern Medical and Surgical Journal, edited by Paul F. Eve, M. D., for September and October. (Monthly. Augusta.)

The Charleston Medical Journal and Review, edited by P. C. Gaillard, M. D., and H. W. De Saussure, M. D., for September. (Bi-Monthly. Charleston.)

St. Louis Medical and Surgical Journal, edited by M. L. Linton, M. D., John S. More, M. D., Wm. M. McPheeters, M. D., and Joseph N. McDowell, M. D., for October. (Bi-Monthly. St. Louis.)

The North-Western Medical and Surgical Journal, edited by W. B. Herrick, M. D., and J. Evans, M. D., August and October numbers not received. (Bi-Monthly. Chicago and Indianapolis.)

The Western Journal of Medicine and Surgery, edited by D. Drake, M. D., L. P. Yandell, M. D., and F. W. Colescott, M. D. Not received since May last. Monthly. Louisville.)

The Western Lancet and Hospital Reporter, edited by L. Lawson, M. D., and John P. Harrison, M. D. Not received since May last. (Monthly. Cincinnati.)

The Ohio Medical and Surgical Journal. Edited by John Butterfield, M. D., for September. (Bi-Monthly. Columbus.)

Buffalo Medical Journal, and Monthly Review of Medical and Surgical Science, edited by Austin Flint, M. D., for September and October. (Monthly. Buffalo.)

The Boston Medical and Surgical Journal, edited by J. C. V. Smith, M. D. Numbers for September and October received. (Weekly. Boston.)

The Annalist, a Record of Practical Medicine in the City of New-York, edited by N. S. Davis, M. D., for September and October. (Semi-Monthly. New-York.)

The Medical News and Library, edited by ——, for September. October number not received. (Monthly. Philadelphia.)

The New-York Dental Recorder, edited by C. C. Allen, M. D., Dentist, for September and October. (Monthly. New-York.)

The British-American Journal of Medicine and Physical Science, edited by Archibald Hall, M. D., L. R. C. S. E., for September and October. (Monthly. Montreal.)

Dublin Quarterly Journal of Medical Science, edited by ——. August number not yet received. (Quarterly. Dublin, Ireland.)

Monthly Journal and Retrospect of Medical Science, edited by ——. Not received since May last. (Monthly. Edinburgh and London.)

London Medical Gazette, or Journal of Practical Medicine, edited by ——, for September. (Weekly. London.)

The British Record of Obstetric Medicine, Surgery and Diseases of Women and Children &c. &c., edited by Charles Clay, M. D. (Not yet received.)

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All remittances of money and letters on the *business* of the Journal, should be addressed to the publisher, Henry G. Langley, New-York.

The advertising sheet belongs to the business department of the Journal, and all communications for it should be addressed to the publisher, under whose exclusive control it is.